SHIGA

Future Development Of Japanese Dwelling Houses

Graduate School
M. Arch.
1905

UNIVERSITY
OF
ILL. LIBRARY

UNIVERSITY OF ILLINOIS
LIBRARY

Class 1905 Book Sh61 Volume

Je 05-10M

810
S548f

FUTURE DEVELOPMENT OF JAPANESE DWELLING HOUSES

BY

SHIGETSURA SHIGA, B.S., 1893

THESIS

FOR THE DEGREE OF MASTER OF ARCHITECTURE

IN THE

GRADUATE SCHOOL

UNIVERSITY OF ILLINOIS

PRESENTED, JUNE 1905

Digitized by the Internet Archive
in 2013

http://archive.org/details/futuredevelopmen00shig

UNIVERSITY OF ILLINOIS

June 1 1905

THIS IS TO CERTIFY THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

Shigetsura Shiga, B.S. 1893.

ENTITLED Future Development of Japanese Dwelling Houses

IS APPROVED BY ME AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE DEGREE

OF Master of Architecture

N. Clifford Ricker

HEAD OF DEPARTMENT OF Architecture.

79501

1905
Sh1

Future Development of Japanese Dwelling Houses.

Shigetsura Shiga. B.S.

Introduction.

It was comparatively recently that it became in vogue for the educated circle in Japan to tour over Europe and America to observe and investigate the manners and customs of those civilized nations. And at length they deduced a conclusion that the so called civilization of the West is not only based on superficial progress of materialism but it had profound root in the mental training of the citizens; comparison and discussion have taken place in every institution of education throughout the Empire. This is one of the procedures of pushing one step further toward the advancement of this country. We hear also too often of late years as to the questionable qualities of the behavior of citizens toward the public, and so much talk about the improvement of general customs of the country. All these are only reflections arising from sharp observation of intelligent Japanese Globe trotters who carefully compared with keen eyes all the conduct and behavior of

natives.

The manners and customs of a nation are only the reflection of means of existence, which mainly consist of clothing, food, and shelter; what we call improvements of national living is in the main improvements in these three things. Other things, such as etiquette form only an insignificant part which necessarily comes from the method of living; when the latter undergoes a change a corresponding change will follow in the former.

Here the question comes on the start and which at least is a most predominant factor governing the design of our dwelling houses. Have we to design our houses so as to sit on the mat, or to sit on the chair? This may sound strange to a person alien from Japan, yet it is a most important question for the native Japanese in this time of transition. It will be too severe to urge one to chose one in preference to another. If he likes to sit on the mat as he has done, or sit on the chair as all European nations do, either make no difference according to my own view, and under the circumstances of our modern mode of living the houses should be suitable

for either way; the future will decide this question. Remember, however, that the way of bending the legs under the weight of the body to which we have so long been accustomed and which has characterized Japanese from all other nations is surely a great impediment for the development of our legs; comparative shortness of legs of all Japanese has as believed by some its cause in this habit. Stretching a body on the Futon (a bed, without bedstead, simply spread over the mat* on the floor) at night is not healthy mode of sleeping from hygienical stand point taking in the air much loaded with carbonic acid gas at night. Only common sense is enough to know whether it is evil or not. Still I do not insist upon changing our mode of daily life instilled in us from time unknown; it might be too severe to persuade one to accomplish the work which is almost impossible to do at present; it would be better to leave this question to one's own judgement for awhile. It will not take more than a century before the problem is solved; and meanwhile it is enough to remember that the only way for progress is to abandon what one consider wrong and to adopt what is right. An inclination of a few minutes of a navigator's compass

* Japanese mat is 2 ft. 10¾ ins. by 5 ft. 9½ ins. having thickness of 2½ ins. laid on wooden floor.

when he leaves a port makes a divergence of thousands of miles in a course of a few days, so the discrimination of the majority of people however small the matter may be, greatly influences the civilization of a country.

The second question is whether our dwelling houses should take an appearance of European style or Japanese in aspect. According to my own view, if one choose his habitation to look European he need not hesitate to do so; but if he prefer to treat his house with Japanese design he may do it so: Chinese, Hindoo, Greek, or Roman make no difference whatever as far as the selection of design is concerned; the determination of national art is another question not involved here. The freedom of design should strictly be observed in any time and place provided the precautions hereafter set forth be carefully heeded.

To live in a perfect house is an ideal or ambition quite out of reach; but if he is wealthy enough to start a new home, that impartial judgement and trained eyes with which he should discriminate what the result will be is always necessary. It is dangerous for an uninitiated to live in a house designed by an uninformed builder or an ignorant amateaur architect; the outlay for the house

is too high to merely display one's vulgarity or low taste. A result which is an outgrowth of inexperienced hands with little or no attention to the modern application of science, and a sequence of a gathered knowledge of worthless, scattered information would undoubtedly be surpassed by that which worked upon common sense as its foundation and was finished by the principle of aesthetics. This is a paramount important point to be considered by either an architect or a house owner, and is the only way to attain a result near to the perfect and not far from ideal. In this time of transition the design of the Japanese dwelling houses has no definite course by which to follow. And I deem it necessary to point out what to be done and what not to be done for architects and clients, for it concerns greatly the future development of Japanese dwelling houses.

The object of human habitation is not only to keep out the weather or to sustain the life alone; the habitation of primitive aborigines were just for that purpose and had no further need arising from the want of daily necessity. The development of human intellect improves the method of living and its reflection is made apparent by the mode of cloth, food, and dwelling. Civilized nations are not satisfied with houses which are built only to keep out weather or to sustain the life alone, but seek the dwellings which keep their life most safely and at the same time most comfortably. The modern requirements of houses are much complicated and involve so many principles. Notwithstanding that the subject is one of the most interesting as well as comprehensive among architects, yet it is viewed by Japanese architects with somewhat of indifference. The aim and object of dwelling houses is of course safety and comfort in living, but in order to meet the requirements of the house we have to further consider it from scientific, economical, and artistic stand points. It would therefor be appropriate to establish a maxim according to reasoning, as is generally done, either in

criticizing or creating anything; and my discussion on Japanese houses is no exception.

Principles involved in house designing are not so simple as one would suppose, for the work of house designing is simply an application of the scientific, economical, and artistic idea. In other words, stability, sanitary, convenience, economy, comfort, and beauty are six principal elements which no architect or house owner should lose sight of. These elements are principles which govern the designing of houses and conditions which are to be fulfilled, if a house is desired to be perfect, in any time and place. All houses should be erected on these foundations. But the further we think the more we feel the question becomes complicated; for the question of the houses is not so simple that we can grasp it under the elements cited above. A house as the abode of man as a social being; has it no relation to the development of human society and human culture? Also has it no concern with human character and conduct? In discussing dwelling houses, all these should be taken into consideration. And though it seems to be entirely beyond the scope of an architect's work, yet it has

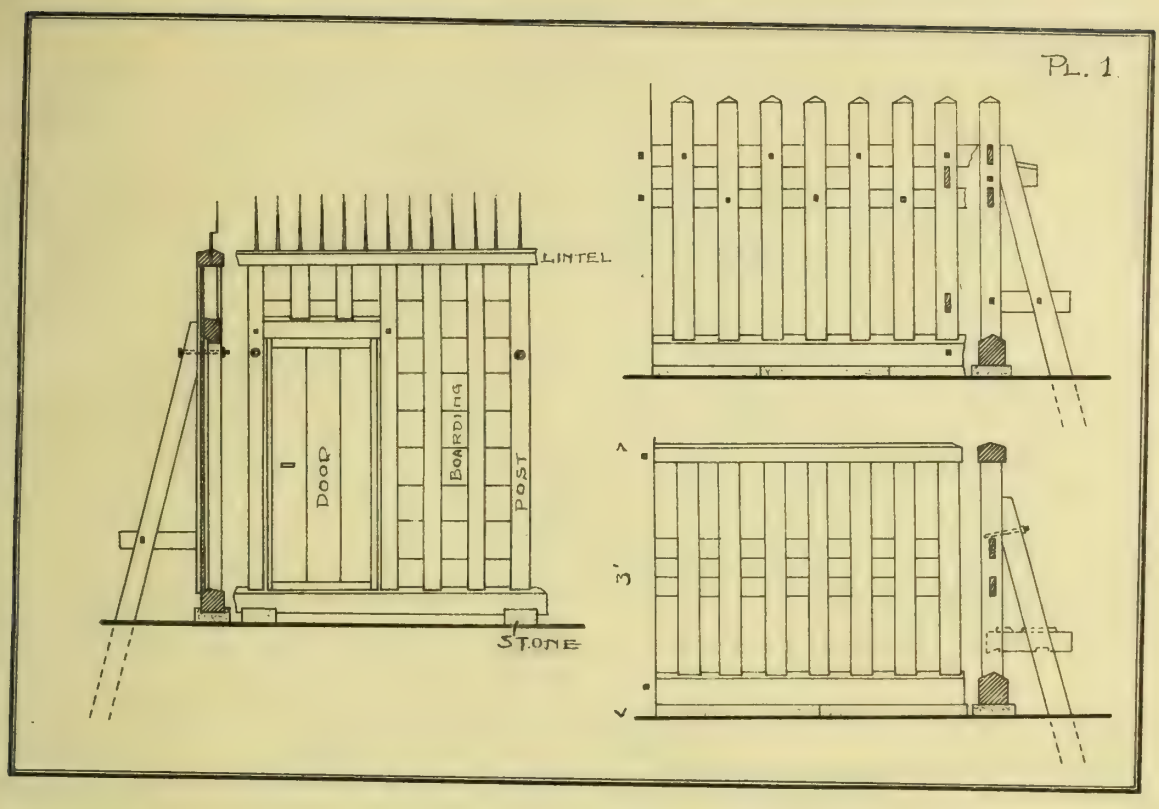
a great concern with the future development of Japanese houses.

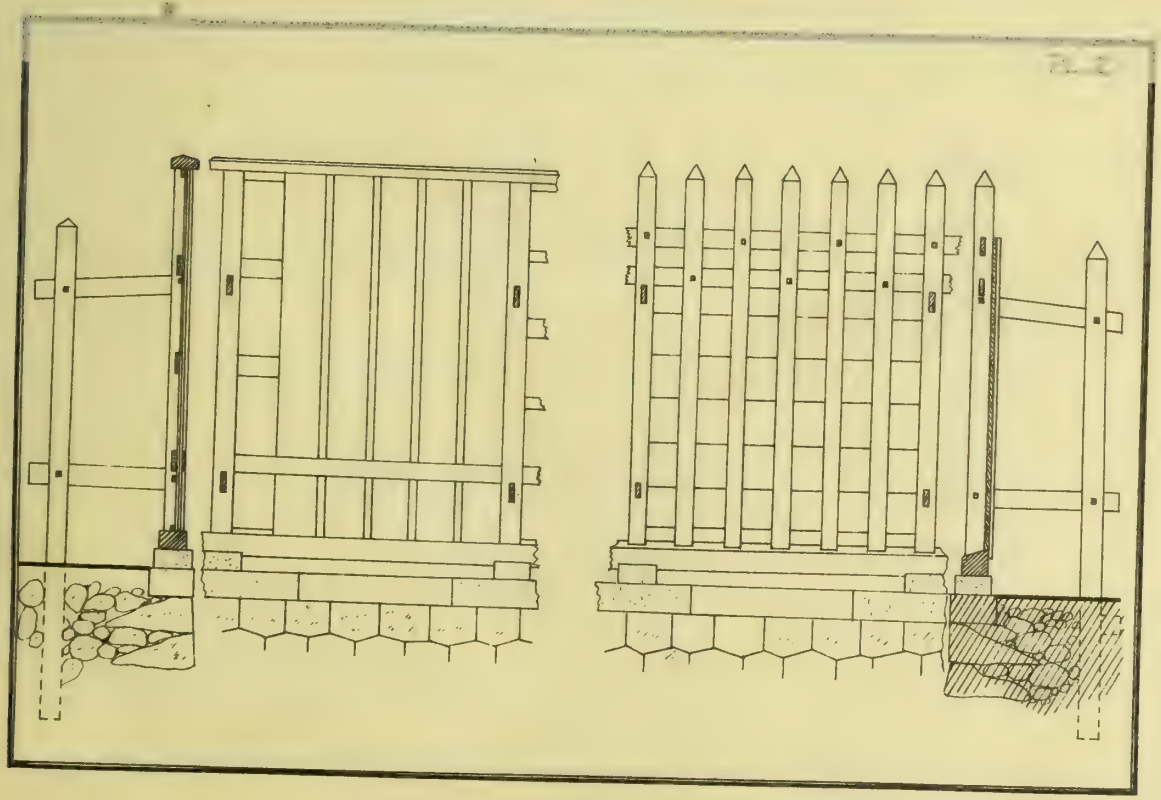
There can be nothing perfect in this world; in order to fulfil one desire something else may or must be sacrificed: for economy's sake beauty may be sacrificed; for sanitation convenience will perhaps be a victim. On the whole, the work of a house architect is plainly a matter of compromise.

Modern Japanese dwelling houses should not be regarded like curios which only gratify the owner's curiosity by decorating Tokonoma (the recess in which kakemono is hung) and Chigai-dana (a shelf in the recess next to Tokonoma, art objects being generally displayed on it) in a parlor. A house erected in its rational and appropriated form, on lot in the circle of the metropolitan city of the empire, attracts attention of all nations at large; no matter whether it is a private or a public building is entirely of a public nature. The house is undoubtedly the property of the owner, yet in its widest sense the property of a country, and has a great influence upon public happiness, and at once reveals the standard of living of-

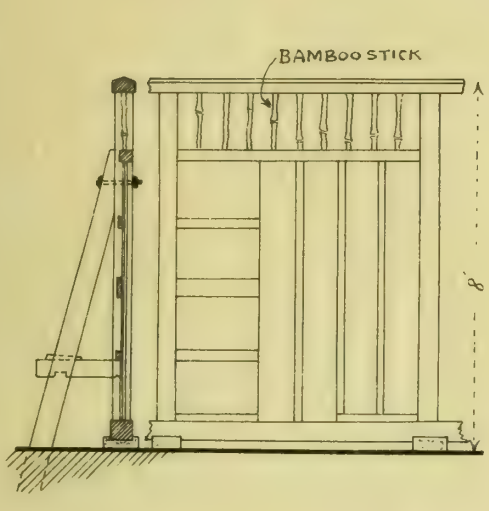
the natives. We see many a beautiful residence in Europe and America and notice that they are not only boasted of by the owners themselves but by the citizen who guides us to the quater where wealthy people dwell. They are apparently proud of the beatiful houses, but it may be understood that they are inconceivably proud of the country which possesses them in its realm. A house is surely a decoration of a state, an embellishment of a city, an achievement of the fine arts. Natural supremacy of scenic beauty is no special credit to the country. Artificial supremacy in art and science is true pride of a nation.

Japanese houses in general are destitute of nature of publicity; they are confined in the enclosure of earth wall or tall wooden fence so that they are hardly seen from outside (see the drawings of different style of fences). Does this not mean that the house is build for one's own sake not being for the purpose of showing it to others? This spiritual selfishness is well manifested in the predominant feature of Japanese dwelling houses. Or we may draw a conclusion in another way. The

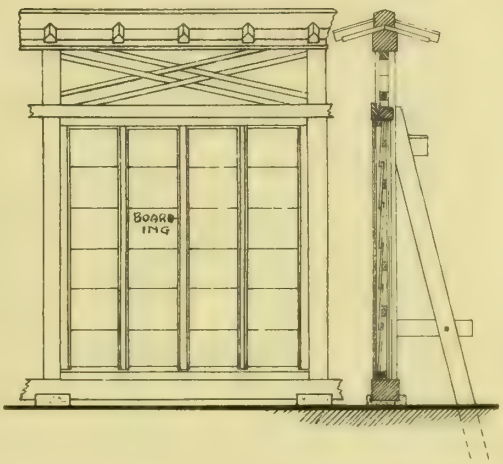

PL. 1
LINTEL
DOOR
BOARDING
POST
STONE
3'



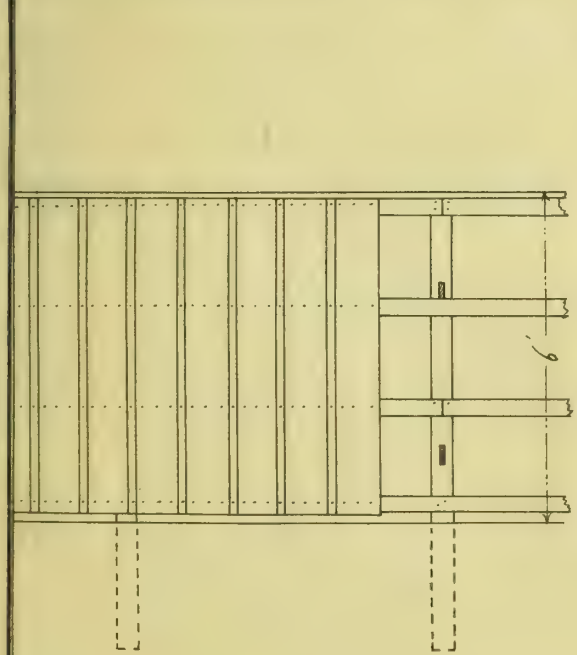
PL. 3

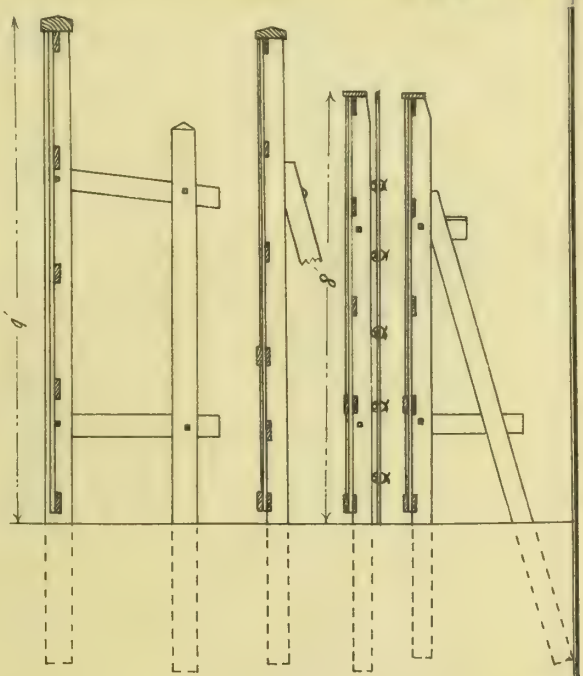


ROOFED FENCE

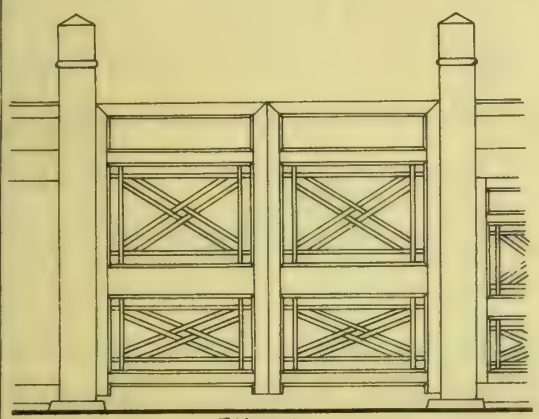


PL. 4

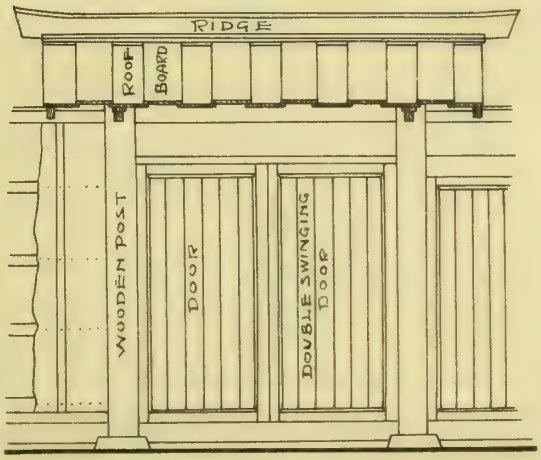




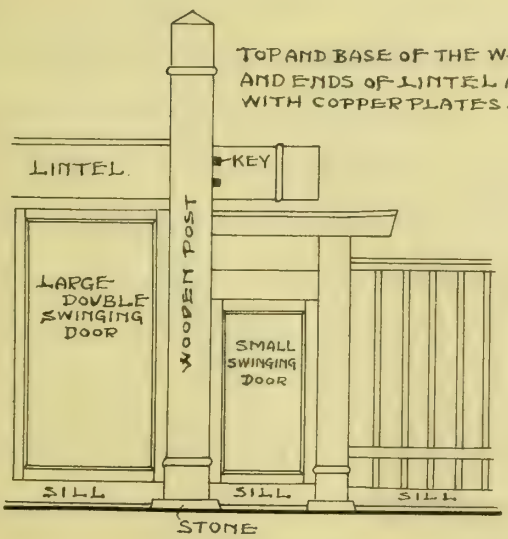
PL. 5



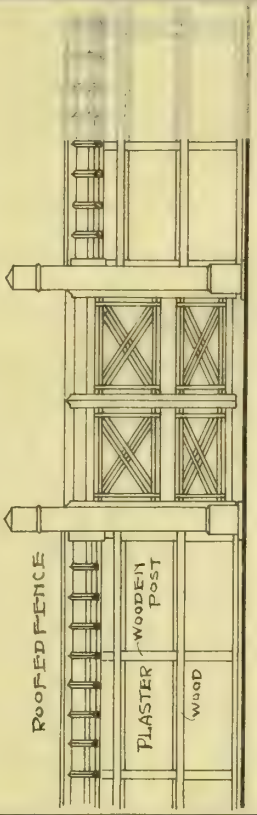
GATE.



PL. 6



TOP AND BASE OF THE WOODEN POST AND ENDS OF LINTEL ARE COVERED WITH COPPER PLATES.



Japanese are generally known as reserved or modest people and do not like to show off what they posses or what they have done; they feel quite a shame if they are regarded by others to be pretentious or vain. This prevalent motives common to all Japanese, pervades all the doings of the people. The seclusion of Japanese houses from the sight of the public is mainly ascribed to this fact; the true phase perhaps not being in the selfishness but in the reserve. It may be admitted, however, that Japanese houses in their construction are not suitable to show whole structure to the public thoroughfare. There is another reason that compelled the Japanese houses to take the feature of seclusion; in the feudal time of Tokugawa Shōgun, more than three hundred lords or Daimio being scattered over the whole empire ruled their subjects or retainers with what we now might call despotism. a subjct who is in a habit somewhat of showing off his wealth could not escape from the eyes of a lord, or a lord of lords the Shōgun. The heavy tax was levied from him not as a charge

for vanity but it considered his wealth to be capable of giving as much substantial assistance as he could endure for his lord.— The Corean people of today is unfortunately a victim of authority under the same circumstance.— Under such circumstances, is it not natural that a person conceal his wealth from the inquisitive eyes of authority? The seclusion of houses became necessary and it was, in fact, a natural consequence. Japanese are modest or reserved as most Europeans call them, but notice there is a difference between reserve and concealment. Are Japanese houses modest or reserved as a result of national spirit? Or are they so in order to conceal their true phase? This is a question not easily determined, still it safe to regard the result as a sequence of mental reserve and material concealment, altogether inadmissible to the modern idea.

If one is loyal enough to his country give up the principle of seclusion.— I do not for a moment mean to persuade to show off — widely open the gate and manifest the

true phase of the house and beautify it with his might, and, as a group, decorate the city; it is a duty as a citizen, and is charity to the poor as a certain English lady puts it. Tall wooden fence, heavy earth wall inclosing both houses and gardens, altogether impressing an idea of a prison, should be avoided in the houses to be erected hereafter.

This wide open idea much deviates from the statement made by the author of "Successful Houses" on the American dwelling houses; "it certainly lends no picturesque element to the landscape, and affords not the slightest trace of privacy to its owner, but simply boldly proclaims the ownership of the enclosed earth, as if to say: 'I own these 60×175 feet; you may look over and covet my house, but you may not enter'." I do not believe that American wide open principle of house lot may involve any selfishness or mean to excite covetousness of passing strangers. This principle, however, may not prove to be harmful if it introduced, to a certain extent, in a seclusion principle of our Japanese houses. Here I should again state that the seclusion principle of Japanese houses does not involve any sense that "each man's

house is his castle" which was said by laying most stress upon man's proper right. On the whole, the comprehensive idea of reserve and modesty pervades all Japanese houses from exterior treatment and to interior decoration. If it is one of the principles of human nature that things half seen appeal most strongly to our taste and tempt us most with interest and appreciation, as the same author said, American fences are too low, and those of Japanese are too high; we should take the average of the two.

The question of home education is a much talked of subject of late years. It is of paramount importance for the parents and elders of a family to lead their youngers and children by behaving themselves so that the latter can be moulded after the mould which had been laid down by the former. Most Japanese emphatically call attention to this point when they talk of the home education. But we should acknowledge that this is not all that will affect the character or culture of young people. Every body knows that a school, in its nature is a place where the young people are

educated; yet the majority of people do not know how the preliminary considerations had been taken into account before the erection of the school was carried out; the kind and arrangement of the seats and desks, the position of black boards, the size of windows, the descriptions of curtains, the size and shape of class rooms, the height of ceiling, and even the minor detail of open and close arrangement of doors. These and many other particulars are subjects which one cannot lose sight of before the final end of education is fulfilled. Thus, if such preliminaries be necessary in schools, why are not like cautions, if not the same, necessary for our dwelling houses in order that they may serve the purpose of home education?

It may have a certain effect upon undeveloped minds of children to impart the mental taste of fine arts if one decorates the rooms with pictures and curios. The hanging of atlas and the exhibits of the specimens of plants and animals in rooms for decoration may help the development of their scientific idea. Any picture or bust of

an illustrious man may give a hint in regard to their future curiss. These are not important factors, however, from an architectural stand point, as the decoration of a house though they may have no small influence upon childrus character.

A father is the man who knows best his son's character. Japanese is the man who is most fully aware of the weak points of his fellow-citizen; every body admits that we are inclined to irregularity in doing things, destitute of selfrespt, indifferent regarding idividual proper rights, these are only a few among many which are to be cited. I feel myself that these weak points as a nation may be attributed, for the most part, to the construction and arrangement of the houses we live in. We know that our present houses are the consequence of a change of our national character which has been taking place from time to time, and I deem it quite high time for us to form a new character by picking up every thing that is good and throwing away every thing that is evil without any regard to prejudice and to give birth to a new form in this land of whirlpool of occidental

and oriental current. Let me give examples how our houses exerted an influence upon our character, and thus the conclusion may be drawn that in order to bring about a new character we have to remodel our houses accordingly.

Notice the manner of the working class when they are doing work; they take rest irregularly while working; tea, tobacco, newspapers are things to interrupt the continuity of working hours, and even a little time is stolen by talking over some matter which appeared in the newspaper. This is not only the case with working class, but in some extent may be applied to the officials of some public and private establishments. Here may be various causes of this manner of irregularity of working, still I dare to say that the construction of our houses is one of the influences which tends to this abominable habit. At least we are trained to do so in our houses. If we do so in the house, why not so outside of the house? Nearly all wall surfaces of Japanese houses are open for Shōji (sliding sashes lined with white paper having grooves on a sill, sashes sliding on these grooves) or Fusuma, [illegible]

temperature of inside and outside is nearly the same in winter. The perfect ventilation is secured only at the expence of heating. And if this imperfectness of heating be ascribed to the situation of the country which, in most part, lies in the temperate zone, we find quite a contradiction to this in the fact that Japan contains states in the south whose evrage temperature is just as warm as the Sandwich Island and in the north the states whose temperature is just as cold as Boston, and yet the feature of houses is about the same in both extremities except a little modification in construction. We find such a fact in all countries in the world. Architecture is more affected by the influence of style and materials than climate itself.

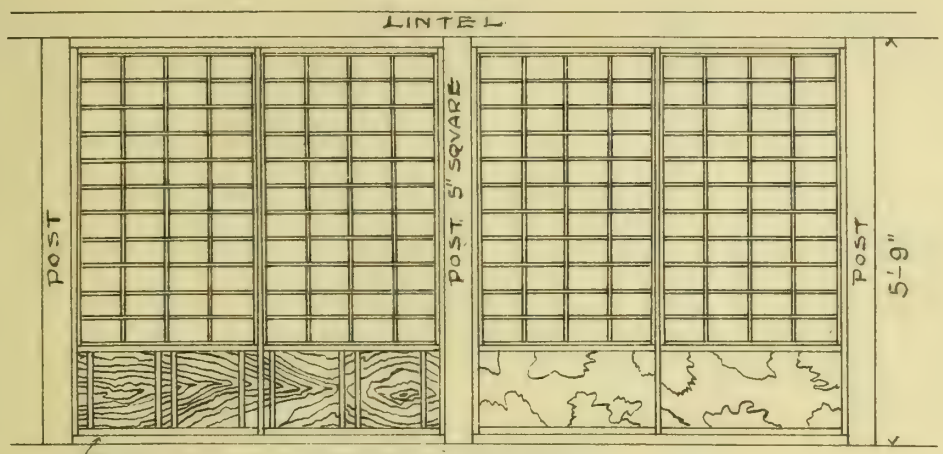
Japanese houses are heated by "hibachi" (literally means a fire box: a box generally made of wood, the inside of which is lined with a sheet of metal and in it fine ashes are filled and in the middle of it charcoal fire is placed. It is an exquisite piece of cabinet work. The average size is One foot six inches square and about one foot high though there are great many different sizes and designs) in winter.

It is not indeed sufficient to meet the requirement for heating, and is not admissible from the sanitary point of view. As we have nothing for heating purpose but this "hibachi", the only way to get warm is to expose our face and hands over the fire so that our working hands are practically tied up, for "hibachi" is not intended to warm the room, inasmuch as the box is not designed to do so. Tea, teapot, teacups, and hot water are generally seen around "hibachi" and attract one's temptation. This is a part of home life and often seen even in old business offices and work shops. In winter we have such a system of heating far more primitive than fireplace which was much admired by J.P. Putnum. How can we hope from such institution a satisfactory result of working? This custom leads us to do work irregularly indoors as well as outdoors. In a word the construction of our houses is responsible for a large share with this evil result.

The rareness of partition walls is a main feature in our houses. "Shōji" and "Fusuma" are only partitions which divide one room from another. ("Shōji" and "Fusuma" are illustrated in the plates) A house itself is one vast

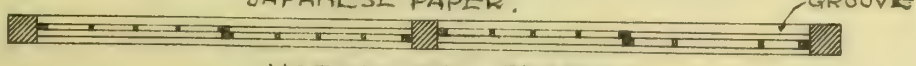
PL. 7

"SHŌJI"

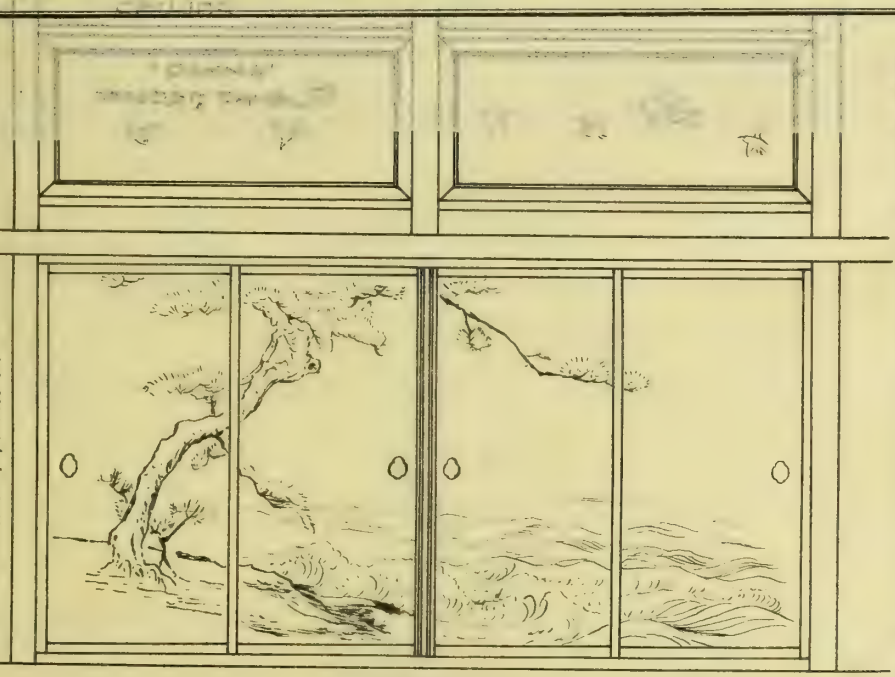


SILL ON WHICH THE GROOVE IS CVT.

LATTICE WORK ONE SIDE OF WHICH IS COVERED BY WHITE SEMI-TRANSPARENT JAPANESE PAPER.



HORIZONTAL SECTION

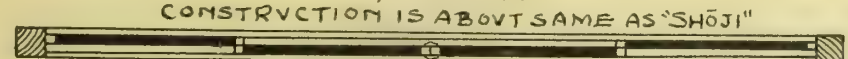


DESIGN IN RAMMA IS GENERALLY CVT THROVGH WITH CARVING KNIFE

BOTH OF TWO SVRFACES OF WOODEN LATTICE WORK COVERED BY THICK PAPERS WHICH ARE COMPOSED A NVMBER OF THIN SHEETS OF PAPER. CLOTH OFTEN VSED. ELABORATE DESIGNS ARE SOMETIMES PAINTED.

"FVSVMA"

CONSTRVCTION IS ABOVT SAME AS "SHŌJI"



HORIZONTAL SECTION

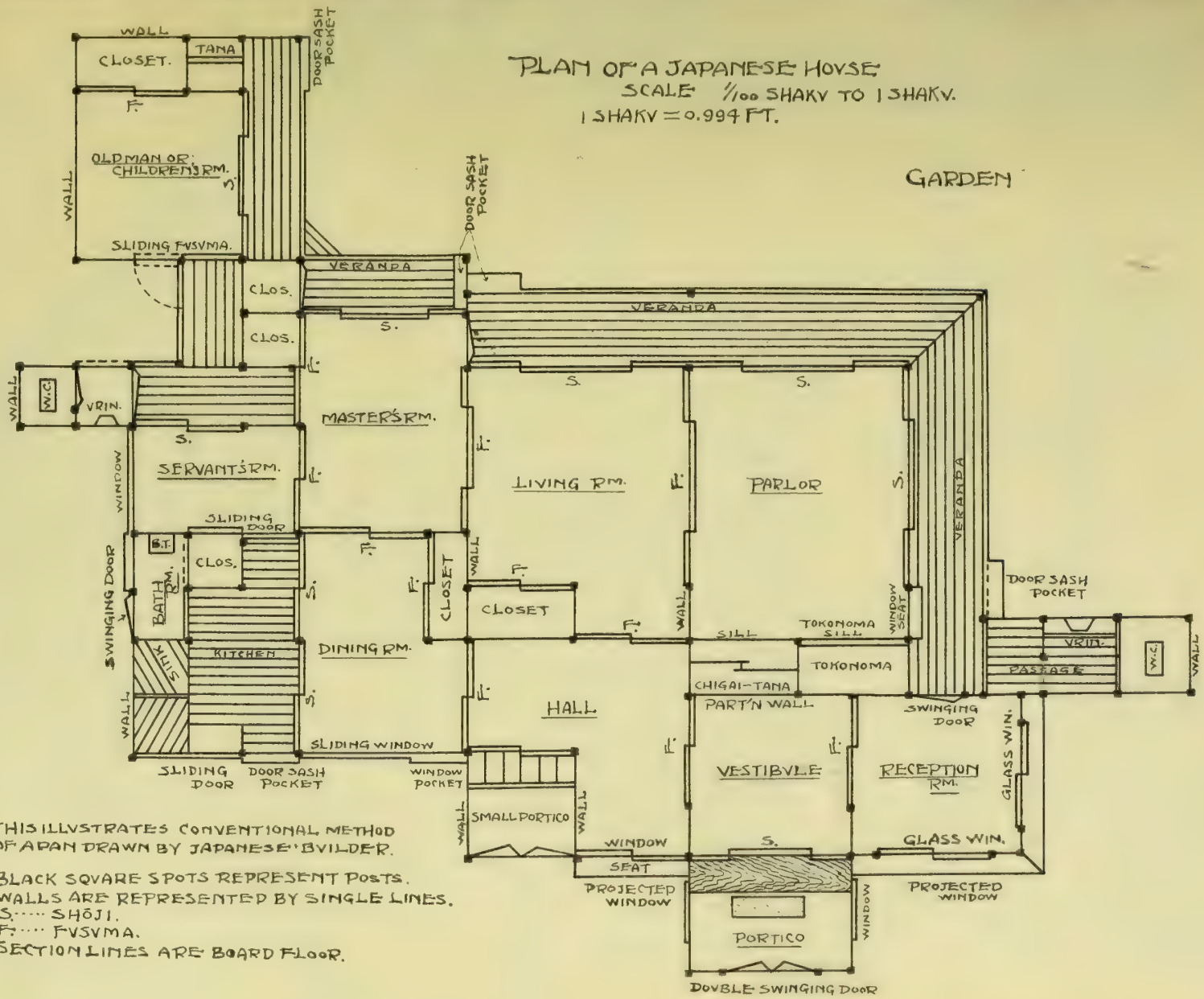
room if "Shōji" and "Fusuma" be removed, and from a master's room a kitchen and servants' room are visible, for there is no distinct partition between them. Because "Shōji" and "Fusuma" are not sufficient partition to separate one room from another, simply we are careful not to intrude one another's rooms. In respectable families etiquette is strictly observed, and by this imaginary partition alone one room is divided from another. As we cannot expect such an imaginary partition in ordinary families, an inevitable rude practice of intruding on other's room is unavoidable. Although in our houses a long narrow veranda serves the requirements of a hall or a passage in European houses, still the lack of hall system might be a main cause of the careless practices referred to. Even though one dares not pass through the "Fusuma", for instance in a hotel, the voices can be heard and dust can penetrate through the open joint of "Fusuma" into the next room. This makes evident that the fact that our houses are so arranged that the privacy of rooms is totally neglected. On the whole,

abolish "hibachi" so as to avoid an irregularity of working; put up partition in order to secure privacy. Then one of the material aids of promoting the spirit of selfrespect may be established.

It is generally conceived that Japanese do not lay much stress on individual rights. This is well understood from the utter lack of privacy of rooms. We can notice it specially in hotels under pure native plan. Privacy of a room as I said is not well observed by the average Japanese, notwithstanding much attention has been paid to that in the form of etiquette by the higher class of people, though the planning and construction of Japanese houses make it inconvenient to enforce it. "Privacy", said the authors of "The Decoration of Houses", "would seem to be one of the first requisites of civilized life, yet it is only necessary to observe the planning and arrangement of the average house to see how little this need is recognized. Each room in a house has its individual uses: some are made to sleep in, others are for dressing, eating, study, or conversation; but whatever the uses of a room, they are seriously interfered with if it be not preserved as a small world by itself". The authors do not

PLAN OF A JAPANESE HOUSE

SCALE 1/100 SHAKV TO 1 SHAKV.
1 SHAKV = 0.994 FT.



THIS ILLVSTRATES CONVENTIONAL METHOD OF APAN DRAWN BY JAPANESE BVILDER.

BLACK SQVARE SPOTS REPRESENT POSTS.
WALLS ARE REPRESENTED BY SINGLE LINES.
S.····· SHŌJI.
F.····· FVSVMA.
SECTION LINES ARE BOARD FLOOR.

PL.10

PLAN FOR A DWELLING HOUSE.

SAME SCALE AS PLATE 9

recognize that privacy has been well observed even in European houses. How far this was observed in our houses needs to be considered.

In a word we should build houses for the appearance sake so far as architectural aspect is concerned, and as to the interior the privacy should never be lost sight of. Our houses run from one extreme to the other; unless they are kept strictly secluded by walling the house lot by tall fences they are so widely open that one can see at a glance from one corner of a house. We frequently notice it among the lower classes of people. Fences are walls in Japanese houses; if they be taken away a house stands naked or defenceless. How the naked ness of a house exerts an influence upon the moral effect of inhabitants of the house, we can tell it at once by their indifference to the individual right, and their rude demeanor to the general public.

Vicisitude of the mode of living represents the alteration of the custom of a country, and the latter is the result of the change of a mental taste of the people forming a majority of a nation

In this time of transition a considerable change in mental taste has occured and many a rite of old has been rooted out since the revolution of 1867. The houses in feudal time were chiefly planned to comply with the mode of living of aristocracy or fashioned after the spirit of samurai class. (The martial class). The "shinden-tsukuri" (living-palace-type) or "adzumaya" of more than one thousand years ago was a nature of pure aristocracy; indulgence in gratification of a pleasure being the predominant objekt of its plan. The whole group of buildings was like a summer house in modern sense. On the other hand, "shoin-tsukuri" (Study room-type) was a type which well represents the spirit of samurai, and it became undoubtedly the prototype of modern Japanese dwelling houses.

To turn our attention for a while to an immaterial side of Japanese domestic architecture noticing how it had been subjected under the spiritual influence which at least in Japanese houses is efficaciously influenced by other elements like religion, climate, and foreign-

country, I deem it not quite amiss in this theme.

Samurai class, the heart of the citizen represented the nature and characteristic of all Japanese. Beside this there were agriculturiste, mechanics, and marchants forming four classes of Japanese society may it be understood that the social classes of Japan was not so severely divided as Hindoo castes intermarriage between classes being comparatively free, and occupations not necessarily descended rigidly from father to son. Although these classes had been withdrawn from society since the political revolution of 1867, still the spirit remains. It may be interesting to note how this spirit is expressed in our domestic architecture; Samurai likes to dignify himself and rule his retainers accordingly; so the house has a ridiculously large gate and occupies exceedingly vast area in its plan. Samurai observes the propriety of etiquette in the highest degree as he thinks it a most important factor of a social decorum; for that reason, even though there is no proper partition in the house etiquette works like a strong wall. Samurai will be regarded as mean if he

A LARGE GATE AND 'MUKURI-HAFU' ROOF

displays his possession like an exhibition, he intends it to be recognized that his mind is as clean and simple as clean water is in spite of having much valuable contents within; so in his parlor nothing is to be seen as decoration but "Kakemono", (paper or silk hanging scrolls on which there may be paintings by eminent artists or ideograms of famous personages) flower vase, if any, in "Tokonoma", and a few

valuable articles on "Chigai-dana", and perhaps one or two "gaku" (painting or ideogram in a frame) over a lintel of "Shōji" or "Fusuma". These are all that we can find in the parlor while hundreds or thousands, if he is wealthy enough, of these descriptions are stored in "kura". (a detached stone room of half fire-resisting construction) Samurai thinks it a greatest honor to keep his family name among the martial-hood as long as he can. He feels the greatest disdain or shame if his family name is discarded from a list of martial-hood by any silly conduct, which can be redeemed only by death. This naturally inspires him with reverence of forfathers who had handed down the stainless family to his reign. Hence we see in many plans of houses of respectable Samurai a room preserved for images of forfathers. This is not only found in the house of Samurai class but in all classes of citizens and this for the most part may be ascribed to the effect of Buddhism and Shintoism, the national religions of Japan. Samurai, however is rather indifferent in regard to religious matters in comparison with other classes of society; though the spirit

of honor or something like chivalric idea of middle ages in Europe was heightened to the utmost. As to the idea or conception of Samurai Professor Inazo Nitobé in his recent work "Bushido, the soul of Japan" treats it in full detail, my conception on the same may not precisely conform with Professor Nitobé, still I believe there may not be a great contradiction between us. On the whole in a feudal system of a government the relation of a Daimio or a leader of Samurai to the latter is well manifested in a like feature in the relation between Samurai and his retainers. The shadow of feudal system is cast in everywhere in social life and even the planning and construction of a house is greatly modified by it.

It is curious to note that so-called American balloon frame construction represents the idea of Americanism, the democracy, each member having no special office particularly assigned to it, yet stands firmly by joint strain. I do not for a moment deduce that a system or a form of government has any direct connection to the construction of a house; but it modifies greatly in the planning of

a house for the reason that a plan of a house evolves a national idea. This is well illustrated by the plan of both American and Japanese dwelling houses. Is it not also strange to observe that by studying the construction of our peasant's house which has a middle main post called a "Daikoku-bashira" ("Daikoku" is a name of god of wealth, "hashira" or "bashira" for euphony means a post or a column) to which all structural stability is concentrated? A construction well suited to the aristocratic form of state only having no king post or queen post; but have "Daikoku-bashira"! When aristocracy in connection with feudal system was the form of government the family life of Daikio was simply a smaller type of it and Samurai and other wealthy families were still smaller of types of government; thus the house plan was made to conform with their traits. The fact that the form of government of a state modifies the architecture of the dwelling house is also exemplified by the house of England and France of the sixteenth century. Indeed, most of our houses of today

were chiefly modeled after the prototype of former samurai houses. Now the spirits of commonwealth and liberty pervade all through the country; daishō (long and short swords borne by samurai) were thrown away, mage (hair tied up at the top of a head. The old custom of Japan) was cut off, even the clothing was partly changed and yet we are faithfully following a mode of living which is half obbolete. Japan is in the state of transition from old to new from destruction to upheaval in architecture and in every thing. Cannot we hope to create a new design unless the old had been destroyed?

The houses as any other objects of utility should be improved by keeping abreast with the advancement of science. The house as a thing which has a money value and useful object to contain human beings, is not different from the railroad train and the steam boat. While a marked progress in these is being noticed from time to time what have we done for the house? We have shown a certain improvement in aspect by adopting European architectural style in house

design, but a very little alteration has been done in its plan. What improvement have we accomplished toward its construction, materials, decoration, and workmanship? Besides the use of glass in "shōji", iron and zinc plates in roof and gutter, what else have we used but ordinary building materials which have been handed down from time immemorial? What is the difference between our houses and those of our ancestors in aspect, construction, materials, and workmanship?

The history of Japanese dwelling houses is a subject not well studied by any architect or man of literature. Though much light has been thrown on the history of Japanese religious architecture by Professor Itō of the Imperial university of Tokyo, we can infer very little from him as to how our dwelling houses were in the past. Religious buildings and palaces form an important element in the history of architecture in all nations, and Japan is no exption. But it is not the aim of this theme to give a historical sketch of Japanese architecture from its earliest time, the object being

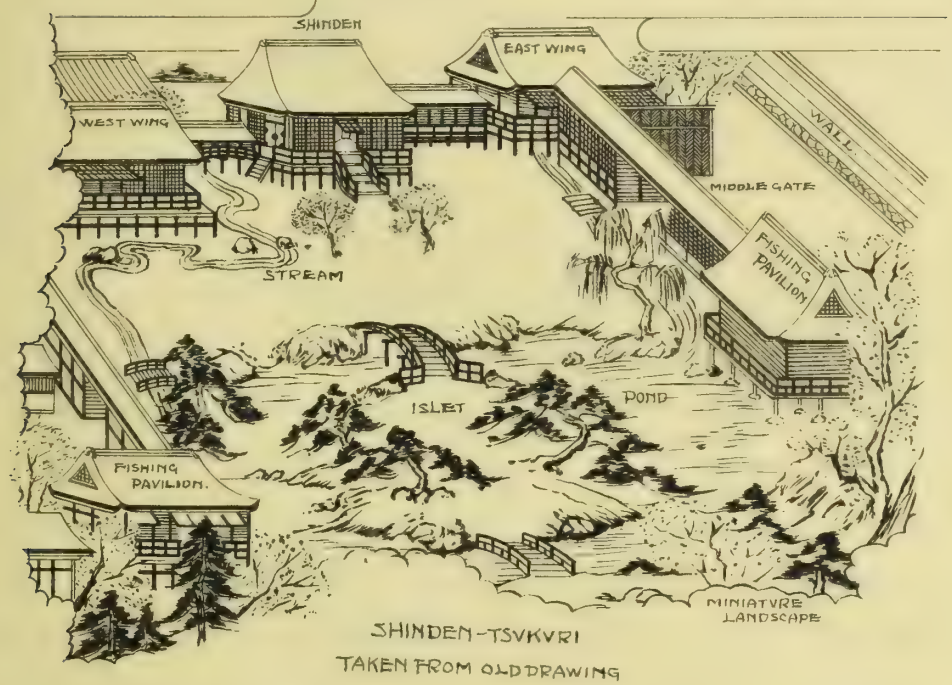
only to show here the stage of development of our houses and thus I mean to infer that an important change should take place in the future.

The history of Japan dates as far back as six hundred sixty years before the Christian era. Before this date we call it the legendary era. According to the decree of administrative court of Shinki it says "in our legendary era the people were primitive, living in caves in winter and nestling on trees in summer", we can imagine from this that in earliest time we were cave dwellers in winter and tree nstlers in summer like natives of New Guinia of the present time. In time of Jimmu the founder of the Japanese Empire (660 B.C.) the houses developed in wooden type and henceforth wood became the only building material. Early Japanese houses had no decoration whatever and it seems to me that since 190 A.D. when Coreans brought some coloring pigments as tributes to the government of Jingo-Kōgō the painting was applied for the first time to the building, but it is certain that the color was applied only to the palace not to the "Yashiro" (Shintō temple) nor to the dwelling houses. The

dwelling houses. The dwelling houses were much improved in the time of Shōmu, (767 A.D.) the zenith of religious architecture. It was then that tiles were used for the first time as the roof covering in common dwelling houses which before that time were mostly covered by the bark of hinoki (Thuya Obtusa, Benth) In common houses tiles were not yet used so abundantly as in temple roofs; they were used on the ridge only; the rest being covered by barks of wood. The plastered wall was also introduced at this time. It may, however, be remembered that that plaster consisted of lime and sand, perhaps having some mud in the mixture; no gypsum was in use as in European plaster

The ages between eighth and twelfth centuries, which includes a little more than three hundred and eighty years, when the Fujiwara family played an important role in the government formed a most prominent epoch of art and literature in the history of Japan. The long, peaceful reign generally ensues an effeminate tendency to the spirit of a nation especially to the nobility who had every facility to possess every thing at call. The result

PL.12



SHINDEN-TSUKURI
TAKEN FROM OLD DRAWING

is the production of "Azumaya" or "Shinden-tsukuri". The plan of which is by no means a desirable type of residence even for a nobility of today. But, to be sure, it served the requirements of the day in which the higher class of people indulged mostly in music and poetry, festival and pleasure. The plan of the Shinden type reminds me of the notable building the "Hō-oh-dō" which was built at this time [illegible]

is some eight hundred years ago in Yamashiro and which still remains in this day in the same spot after long defacing action of nature. It had the honor of being reproduced in Jackson Park at Chicago in 1893 as a representation of Japanese architecture.

The plan of "Shinden-zukuri" consists of a main or middle building flanked with two winge or detached rooms on the east and west connected by porches. The size of the main building was generally 70 feet square, sometimes as large as 120 feet square and even as small as 50 feet square according to circumstances. The interior of the building consists of a main middle room surrounded by a wide corridor laid with mats, reception room, store room etc. being arranged in this corridor each room debided by curtains. The east and west winge were used as living rooms, and perhaps the kitchen was in a detached house. It is imagined from the arrangement of rooms that the house was not planned merely for the purpose of pleasure. The nineth century of Christian era which corresponds to Tun dynasty of China

was a great era for introducing art and literature from China through the hands of Buddhist preachers who had been sent by the government to observe the civilization of China; Kōbō-daishi and Saicho were most influencial persons among scholars and religionists of the time. The returned home from their mission abroad were laden with the knowledge of art and literature which had been scattered all through the empire. The palace was planned on the largest scale ever carried on after the plan of a Chinese palace. The "Shinden-Tsukuri" is undoubtedly a modification of the latter.

"Shōji" and "Fusuma" were not used in "Shinden-Tsukuri", and in outside openings what is called "Kōshi" (the framed lattice window hung vertically in a manner something like a vertical trap-door with thick white paper stretched on one side) was used. It is divided into two sashes the upper part of which is pushed outward, by means of stays, for ventilation. The hanging arrangement, it seems to me, was general in these times, for the means of partition was achieved by hanging tapestry, reed mats etc. which were hung on lintels

of openings. Insufficient function of partitions, the negligence of privacy of rooms were already manifested in these times in our houses; no wonder that our houses of today are built with no regard to this point. The "Tatami" (floor mats, literaly meaning to fold) had not taken the form of modern "Tatami", it was so shaped that when not in use it was put away folding in suitable size, and made of leather, reeds, silk cloth etc.

From the early part of the fifteenth century, the latter part of middle ages in Europe, the whole empire had fallen into a scene of chaos; innumerable old edifices, public documents, private writings, in a word, the whole art and literature were destroyed under the merciless fire of war. Amid this confusion, we can trace the gradual outgrowth of another type of art; the Shinden type gave place to Shoin type or "Shoin-Tsukuri". Shoin in modern idea means a room for study; but on certain occasions it was used as a reception room. The Shoin type proves that the mere copying of Chinese palace like "Shinden" no longer satisfactorily fulfilled the requirement of the day! The

"Shoin-tsukuri" is indeed a prototype of our modern house. Our "Zashiki" (parlor) was surely modeled after it, for it has "Tokonoma", "Tsuke-shoin" (a recess for books) and "Tana", ("Chigai-tana" in the modern house) all of which are main feature of our parlor. Shinden being surrounded by corridor, a vast main middle room is shut out from light, on the contrary the Shoin has light in abundance. It may not be amiss to add a few lines here in regard to "Tokonoma". What the "Tokonoma" is in Japanese parlor the fire-place is in American parlor. The use of "Chigai-tana" in the former house is like an alcove and shelf put together in the latter house. The fire place or mantel-piece in American house affords dignity and cheerfulness to the room besides the proper use beautifying and warming the room. "Tokonoma" and "Chigai-tana" in our houses may give thoroughness of the room by breaking up the feeling of vastness and bareness of the whole appearance, and the nature of decorative treatment may impart the sense of reverence and dignity but no feeling of cheerfulness is imparted. It is altogether too formal, too traditional, and

too conservative, and is more formal than is the American fireplace.

Without "Tokonoma" and "Chigai-tana" and a few hanging frames of paintings or ideograms a Japanese parlor is one empty box surrounded by "Shoji" and "Fusuma"; no furniture, no carving, no moulding to give grace to the form, no ceiling cornice, no chandelier, these places are being filled by using wood in the

PL.13 shows an inside of "Chashitsu"
PL.14 "Tokonoma"

horizontal and vertical pieces specially rare species as a post at "Tokonoma", in all showing beautiful natural grain without varnishing or painting. It only displays the skill and manipulation of handling tools in joints and in dressing the face of the pieces. In the interior the wall surfaces are plastered with natural sand* glittering with minute particles of mica and felspar. It gives a very good effect. If comfort is one of the main objects, as I said, in the designing of a house, Japanese parlor affords no comfort whatever either to the host or to the guest mentally or physically. Too much conventional rule of procedure in the design of the Japanese parlor unnecessitated the hands of architects and as a consequence no scientific idea was evolved in the design. Here I should not hesitate to state that the comfort was not an object to be observed in the Japanese parlor, nay, not in the Japanese house. Comfort was not much cared for; how can the science develop in such a country?

We had been taught from our boyhood not to complain of cold or heat, not to strive after attaining physical comfort, not to show any meanness or silliness in the traits of

* Sand is found everywhere along the sea coast of Japan in various colors according to places, some times it is colored.

daily life, somewhat like an old Spartan mode of training children connected with an oriental religious feeling: the idea is quite oriental or rather Japanese. This unwritten code of Samurai had strictly been observed in former times and educated conservative families are still adhering to it; and I should say that this idea put our country much behind our brother nations on earth in the advancement of science. The modern architects of Japan are often compelled to struggle with this conception which is quite military and not scientific. Simple, natural, tasteful, and clean are words which will express the pervading feature of the Japanese parlor. Should we follow or maintain this unscientific and consequently uncomfortable method of treating our parlor in the future dwelling house?

The Japanese dark ages, the sixteenth and seventeenth centuries, left us a memento the architecture of "Chashitsu", (tea-house architecture) the oddest and most unique architecture the world has ever known. Without an adequate knowledge of the treatment of this architecture no one can reach a true kernel of Japanese domestic

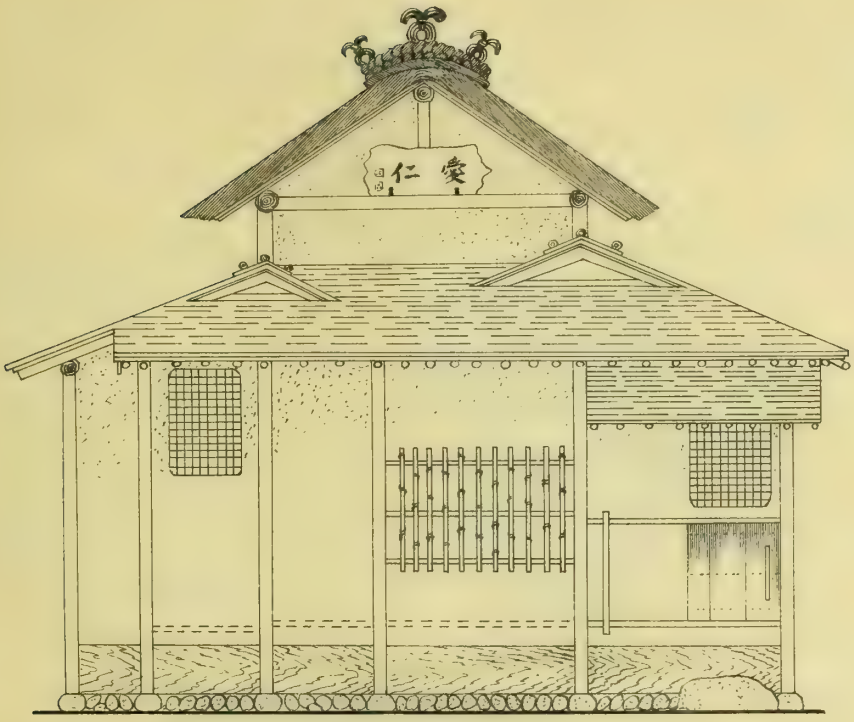
architecture. "Chashitsu" is a little house in which a Cha-no-yu (tea sipping ceremony) is to be held. The practice of Cha-no-yu was much encouraged by the Ashikaga and Toyotomi families, the supreme lords or Shōgun of the sixteenth and seventeenth centuries. This partly as a policy, as I understand, to subdue the rough, rigorous, warlike spirits of Daimio and Samurai at the time of a confused order of society. Let me quote from Professor Nitobé's "Bushido, the Soul of Japan" a very interesting article concerning Cha-no-yu.

"As an example of how the simplest thing can be made into an art and then become spiritual culture, I may take Cha-no-yu, the tea ceremony. Tea-sipping as a fine art! Why should it not be? In the children drawing pictures on the sand, or in the savage carving on a rock, was the promise of a Raphael or a Michael Angelo. How much more is the drinking of a beverage, which began with the transcendental contemplation of a Hindoo anchorite, entitled to develop into a handmaid of Religion and Morality? That calmness of mind, that serenity of temper, that composure and quietness of demeanor which are the first essentials

of Cha-no-yu, are without doubt the first conditions of right thinking and right feeling. The scrupulous cleanliness of the little room, shut off from sight and sound of the madding crowd, is in itself conducive to direct one's thoughts from the world. The bare interior does not engross one's attention like the innumerable pictures and bric-a-brac of a Western parlor; the presence of kakemono calls our attention more to grace of design than to beauty of color. The utmost refinement of taste is the object aimed at, whereas anything like display is banished with religious horror. The very fact that it was invented by a contemplative recluse, in a time when wars and rumors of wars were incessant, is well calculated to show that this institution was more than a pastime. Before entering the quiet precincts of the tea-room, the company assembling to partake of the ceremony laid aside, together with their swords, the ferocity of battle-field or the cares of government, there to find peace and friendship.

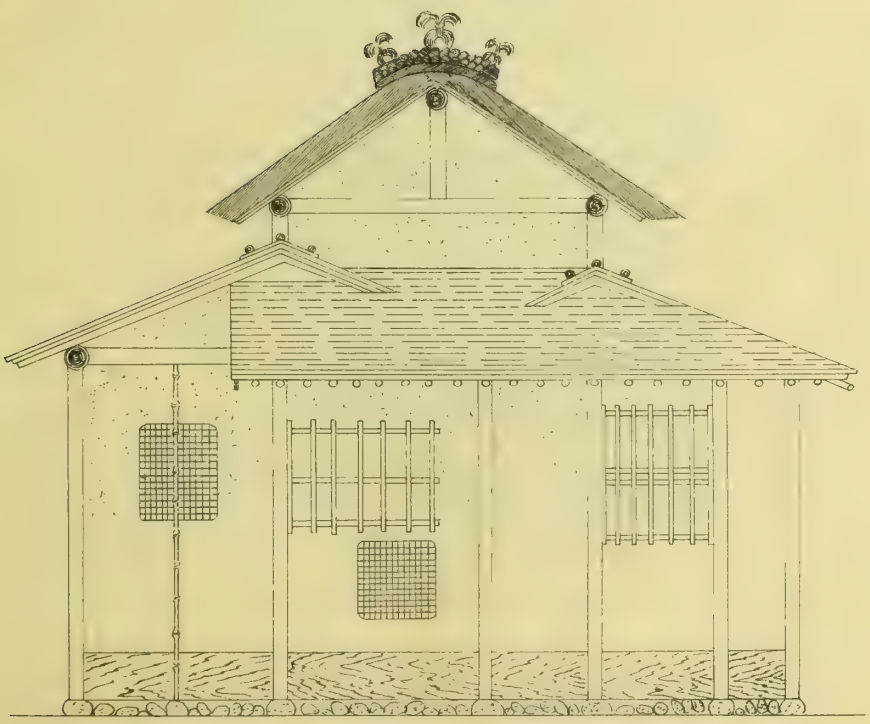
"Cha-no-yu is more than a ceremony; it is a fine art; it is poetry, with articulate gestures for rhythms: it is a modus

A CHASHITSU PL.15

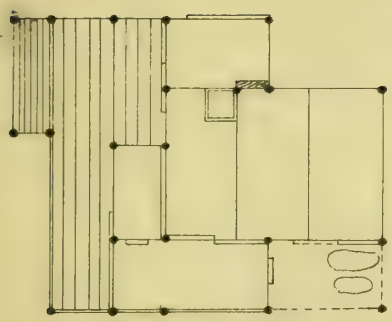


FRONT ELEVATION

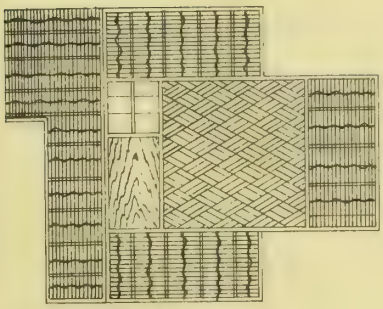
PL.16



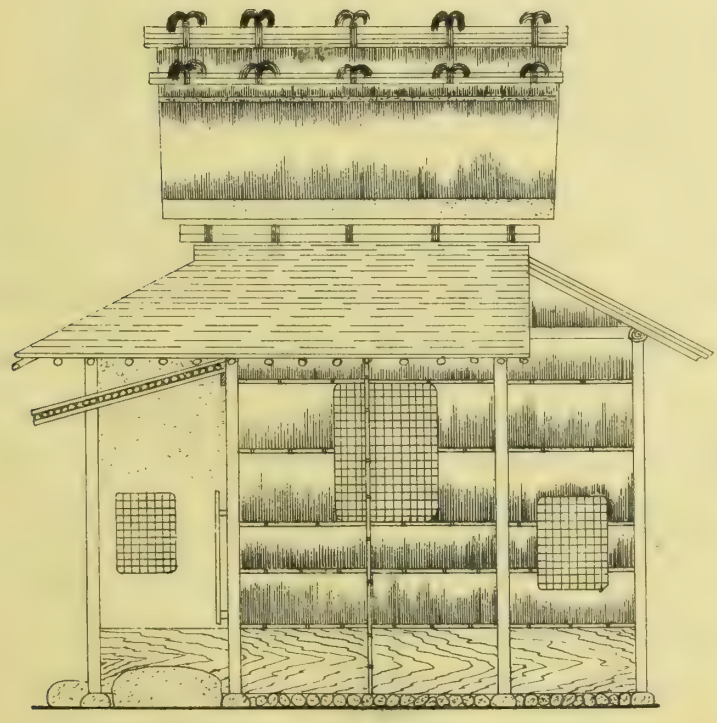
REAR ELEVATION



FLOOR PLAN



CEILING



RIGHT SIDE ELEVATION

operandi of soul dicipline. Its greatest value lies in this last phase.—"

In "Chashitsu" any thing in the way display is banished and the utmost refinement of taste is the object aimed at. Every thing was so simplified and rusticated that Mr. Eastlake would look with amazement. There is nothing more simple than to use natural object just as it is; the post at the "Tokonoma" is almost invariably a natural form of wood the bark only being removed. The small rafters which are visible from outside of "Chashitsu" are simply round sticks about an inch in diameter placed every foot. Sometimes the post of "Chashitsu" are so pecurially finished that the marks of an adze may be noticeable. The face of walls are of sand of beautiful natural tint of bluish green, gray or reddish brown. The furniture and utensils of Cha-no-yu are the simplest things imaginable. This spirit of simplicity and rustication is well exemplified in the so called refined parlor of a modern Japanese house. There is no doubt that Shoin type and Chashitsu construction have given much influence to the modern

Japanese houses.

The Greece borrowed the motives of art from Egypt, Assyria, and Phoenicia and composed them so splendidly that it seemed as if they were quite original to the Greeks. Greeks are no doubt an artistic people, they formed an artistic idea from an inartistic source, giving grace of form to a disfigured object and perfect harmony to an inharmonious color; and their architecture unconditionally stands beyond criticism. Romans may perhaps have been more artistic and at the same time more practical than Greeks, but we must acknowledge that without Greeks Roman art could not have existed. Japan, no doubt, acquired her artistic idea from China and Corea, but it is a question whether she was a Greek or a Roman of the Far East. If quietude, reserve, tranquility are the characteristics of Greek art we find them likewise in our domestic architecture, the "Chashitsu" and still more in the art of landscape gardening.

I gave Chashitsu and Cha-no-yu as an example of Japanese artistic conception shown everywhere. Here I will

give another example of this kind which necessarily associates with them; that is the art of landscape gardening. This also has its origin with certain Corean who invented the art at the time of Suiko, the emperor of the sixth century. But there is not any evidence that such an art had existed in Corea, and it seems to me that the art of miniature landscape gardening is an outcome of the scenic nature of the country. The abundance of of hills and waters, rocks and trees gave naturally the rise to the unique scenery in inland as well as the sea coast. The tasteful imitation of this scenery is an involving idea of this accessory art, and at the later period of Tokugawa Shōgun it had taken a systematic form of an art, and peculiarly connected with the Chashitsu architecture, for it has unique, odd, picturesque conception in common with both. Manifold formulas, traditions, and classifications made it so difficult for one to attempt the art that he cannot place even a single stepping stone without knowing the name given, and the meaning accorded to it. It is true

that one cannot manage the garden so as to make it look picturesque without knowing how to arrange appropriate objects in appropriate places and the nomenclatures of them, for instance "the moon shade stone", "the three body stone", "the twilight woods" etc. make it more interesting and poetical. The idea is quite oriental. A well, a stone basin, a stone post lantern, a flat-top stone, all these necessary elements of Japanese miniature landscape gardening have poetical nomenclatures referring to history, religion and tradition. To the bystanders it may merely seem quite an odd, unsymetrical, picturesque and artful imitation of natural scenery, but profound spiritual meanings which only educated Japanese can understand permeate each of the elements of a garden. It is altogether too poetical as European landscape gaidening is too scientific. Here I show just one type of gardens which is said to correspond to the Roman type of lettering. (Plat. 18) Roman, Gothic, Italic etc. are classification of lettering, so Japanese classify the work of landscape gardening according to the style of treatment in referring to the style of lettering

Pl. 18

PL. 19

PL. 20

If the governing art of the twentyth century the "art nouveau" has mor or less connection to the fanciful products of Japanese art as some American writer asserts, the amalgamation of accessory art like landscape gardening of Japanese with that of European may succeed in producing some thing which is acceptable to the whim and fantastic thought of modern architects.

If the influence of social habits and manners is the most important in the effects on domestic architecture as one of the writers of "Our Homes" puts it, it will be interesting to compare our houses to those of England whose social organization is mor like ours than any other nations in Europe. We have had four classes in society until just immediately befor the abolition of the feudal system in 1867 above refered to. England had also four classes in society at the period immediately following the Norman conquest; they were nobles and small landowners, the clergy, the town folks, and the agricultural classes. The English nobles correspond to our Daimio and small landowners to Samurai, the townfolks to our artisans and merchants, and the agricultural classes to our soil tillers.

Our clergy not being enumerated in the social classes they were considered as recluse. English nobles' castles like the Towers of London, Rochester, Dover etc. are of the same nature as our castles of Nagoya, Kumamoto and others which are scattered all over the country as the seats of Daimio. Sub-feudatories' houses in England were frequently constructed of wood and in cases of danger they took refuge in their lords' castles. Their houses rarely contained more than two or three rooms. Our small Samurai houses were probably not larger than those of sub-feudatories, and unquestionably they were made of wood. But fortunately, our smallest Samurai houses were not so wretched as English villeins' houses which were "commonly rude hovels of mud and thatch, in the one apartment of which the whole family slept. Sometimes two apartments existed, one of which was allotted to the cow. The floors were either of mud or roughly paved with pebbles".

The development of English domestic architecture is of the same nature as ours; this is particularly noticed by comparing the idea of "an assize" of 1189 the first

"Building Act" of England to our first building ordinance of Shōmu dynasty in 768 A.D. The houses in these times in England being mostly built of wood had roofs of straw, reeds, and similar materials, and frequent fires compelled the adoption of a new mode of building. Therefrom, the stone houses covered with thick tiles was one of the requisites of "an assize". The Imperial decree of 768 A.D. we can hardly call a building act, as it only consists of a few lines concerning the regulation of building an imperial palace and the houses of subjects; for instance "officers and laities who can afford to build their own houses should use tiles to cover roofs, and the walls are to be decorated with red and white earth." Before this period thatched roofs had mostly been used. It is evident that the fear of a calamity of conflagration was the cause of the forthcoming of the first building acts of both nations. In England the building act having passed revision after revision, the domestic architecture was improved slowly, but steadily keeping pace with other continental nations in Europe. Improvements of domestic architecture partly owe their cause to the command of materials

to be used. In the twelfth and thirteenth centuries, England was not much ahead of us in the use of building materials. Before the assize of 1189 the outside of houses was covered with reeds or rushes, but after the issue plaster was used both outside and inside of the houses and tiles, wooden shingles, and lead were used as roof coverings. Windows, before the thirteenth century, were mere holes having frames on which oiled paper and canvas were stretched until glass was used for the first time in this period.

English houses of the twelfth century were certainly no better than our Shinan type. Let me give an example of what condition the English houses were in in the twelfth century. The following quotation well explains it: the floor was frequently of earth, and strewn with rushes or straw. When it is considered that refuse from the table was, as a matter of course, thrown on to the floor; that dogs, hawks and other domestic animals lived in the hall, it will scarcely be wondered at that the state of the floor became highly offensive. It is related as an instance of the extreme refinement of Thomas Becket that he ordered his floors to be covered with

fresh straw in winter, and in summer with fresh rushes, in order that such of his guests as could not find room at the tables might not get their clothes soiled by sitting on a dirty floor." This may be an example of an extreme case. Every student of architecture knows that the thirteenth century in England is a zenith of Early English Gothic, why is it that the manor-house and the great landowner's residence did not come under the influence of art then flourishing in the country? Perhaps they did to a certain extent, but not until as late as the Tudor period. One should not imagine that the splendid painted glass of Westminster Abbey was found everywhere in England. It was a costly luxury in this period; for it was imported from abroad and still more expensive because skilled workmen were rare. It is said that in these days common dwelling houses had glass in the upper part of windows and wooden shutters in the lower part.

It was during the time of Elizabeth's reign, the sixteenth century, that English houses assumed a character altogether different from that of the middle ages. This is a

result of commerce and navigation which has ever since been making England so pre-eminent." The long galleries, the projecting oriels and bay windows, the broad terrace and stately flights of stairs, mark a new departure in domestic architecture." Once the lavish use of glass called forth the protest of Lord Bacon, and the use of carpects, except on extraordinary occasions, was considered a mark of extreme luxury and foppishness. This was the state of things in the sixteenth century in England.

At the same time that the beautiful fan-vaulting of Westminster Abbey astonished the world with splendor and delicacy of detail, an order was given by Henry III to make "a certain conduit through which the refuse of the king's kitchen at Westminster flows into the Thames; which conduit the king ordered to be made on account of the stink of the dirty water which was carried through his halls, which was wont to affect the health of the people frequenting the same hall." And in the reign of the same sovereign the royal kitchens at Oxford were blown down by a strong wind. If the house of the sovereign was in such a

condition in sanitation and construction, it may be inferred that the houses of the lower classes were utterly miserable. I do not wonder that the plagues, pestilences, and leprosy of the middle ages checked the increase of population in England. England of the present period, when compared with that of seven hundred years ago, is like another world; and what difference is there between the houses of the present day and those of seven hundred years ago in our land?

When the four classes of society were firmly established in former ages, the plans of the houses were much modified by the vocation, though not much difference in architectural aspect. In the time when domestic manufacturing was in general a predominant feature of trade, and the co-operative system of business was in an undeveloped state, a factory, a store, and a dwelling house were one and the same; a store in front and a factory in the rear of a house was a general feature of the house of a merchant and a mechanic. This kind of house should of course not be treated under the heading of dwelling house proper. We have such houses everywhere in the city at present and cannot

expect to exterminate them in the near future. But the advancement of civilization may not allow such varied forms of houses to exist; the rise of land value and increase of lease bring forth the co-operative system of business or compel a man to work on a large scale and thereby drives the good natured hamlet dwellers, gratifying themselves with a beautiful world of their own, out of the field of fierce struggle for existence. No one can afford to indulge in luxury by dwelling at the centre of a city unless he is exceptionally wealthy and has little regard for the quietness of home life. Wonderful power of organs of communication shortens the distance, thereby forming two distinct type of dwelling houses that is the city and the suburban, the real classification of domestic architecture. The flats, apartment or tenement houses which are classed among the city houses are the outgrowth of an advancement of communication organs, and the cottages of the suburbs are peaceful homes of strugglers for life sustenance. Thus the circumstances do not permit the existence of houses which consist of stores in front and factories in the rear. The classification of houses according to the

classes of society, as formerly in vogue, has no meaning in this time of enlightenment. The plan of a house necessarily becomes narrower in front in the city dwelling as we often notice in houses at Kioto and Osaka. London and New York and all other Western great cities lay examples before us, but it is curious to note that Tokyo furnishes many examples which are contrary to this fact. Domestic architecture develops in this direction only not in any other way. I do not wonder at the subject much talked of of late about the tax to be levied on gardens belonging to houses within urban district. Fortunately the proposition was not carried into effect; but the searching eyes of wise, inquisitive politicians have already been turned to the virgin soil for resource, it is almost certain that sooner or later they will succeed. The alteration of Japanese houses has been necessitated from even a political standpoint. At any rate, as to the laying down of principles and the pointing out of methods of carrying out the alteration of the plan, Japanese architects are fully responsible.

Dwelling houses are divided, according

to an architectural treatment, into two classes viz. city and suburban houses. The characteristics of the two and the reasons why they should be so classified need no explaining here; only a few illustrations of the two different types of dwelling houses are sufficient to remind us of the truth.

I have pointed out six elements and a few principles which govern the erection of dwelling houses. It is more convenient to treat negatively than to attempt positively the discussion of domestic architecture. In order to protect or fulfill the established principles all hindrances from all sides should be overcome. What I cite in the following has reference only to the Japanese and does not refer at all to the foreigners. It is an appeal made only to the Japanese. I consider prejudice one of the impediments in the way of progress which we have to strive to remove. So long as we are adhering to it no advancement can be expected and improvement of our houses is entirely hopeless. There is in Japan a certain prejudice which amounts even to superstition among weak minded people. They choose a place for water closet according to a

superstitious notion. They think that a water closet is the most impure or unholy place, and that the reckless choice of the place for it in a house causes misfortune to the family who occupies the house. They select a place for the well, the entrance etc. according to the same groundless superstition. And they say that thus the national character should be retained through all ages. "The roofs should always be covered with tiles otherwise be thached or shingled. The shape of roofs should be "Chidori-hafu" if not "Mukuri-hafu" or "Kara-hafu". A gate should be "Kabuki-mon" if not "Heijiu-mon". The wall should be plastered if not finished with "Sasarako-shitami". (thin, wide weatherboading over which vertical narrow strips are naild) The posts are invariably square in section, and the ceiling should necessarily be "Go-tenjō" (panelled ceiling) or "Saobuchi-tenjō." (same as "Sasarako-shitami" only horizontal, the strips being deeply chamfered) Such and such parts should be so and so; this is the national style of architecture handed down from our forefathers. If we

change it at random, how can tell that we are Japanese. This is a house just suited to the people of this peculier land; we cannot feel comfort or enjoy convenience but for this peculiar house". There is nothing more absurd than these peculier ideas. I cited in the introduction that the importance of freedom of design should always be kept in mind and here will not speak further any more than that the overthrowing of those prejudices which lie across the royal road to civilization is always necessary.

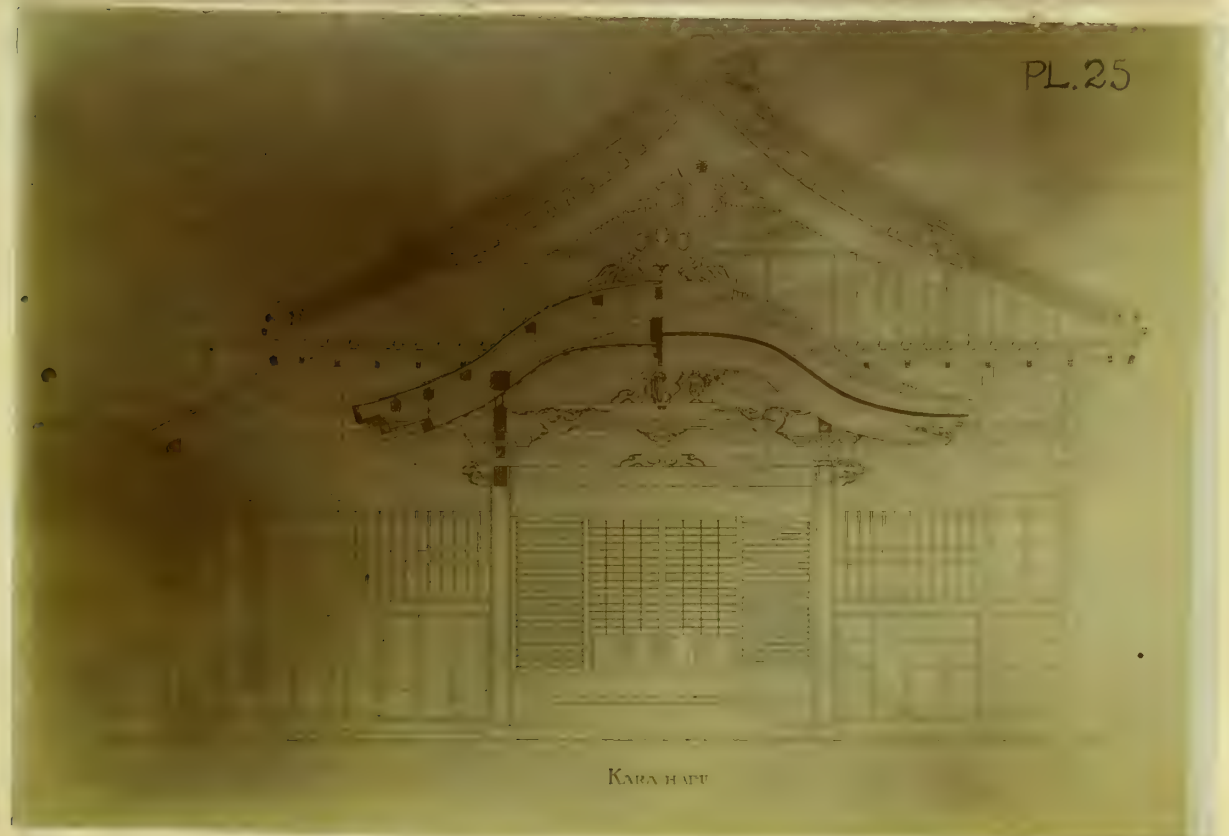
PL. 21

PL.22

PL.23

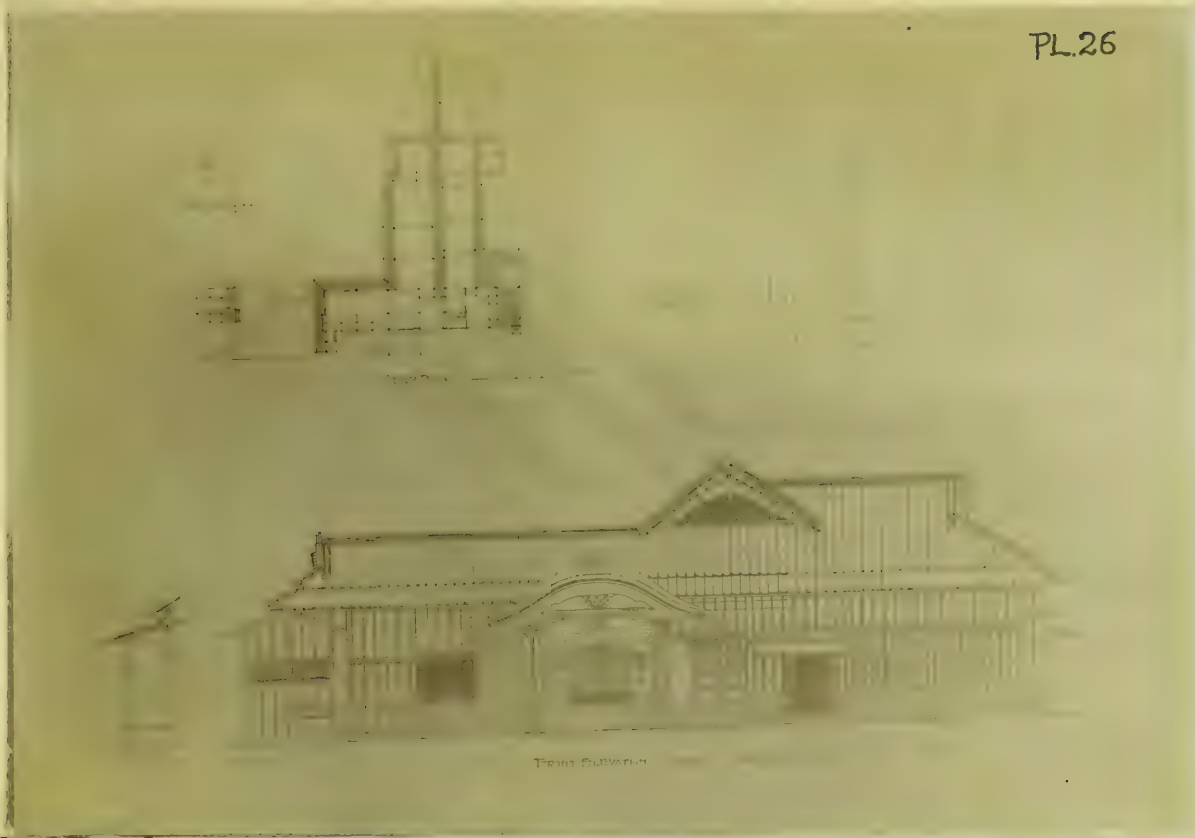
PL. 24

PL. 25

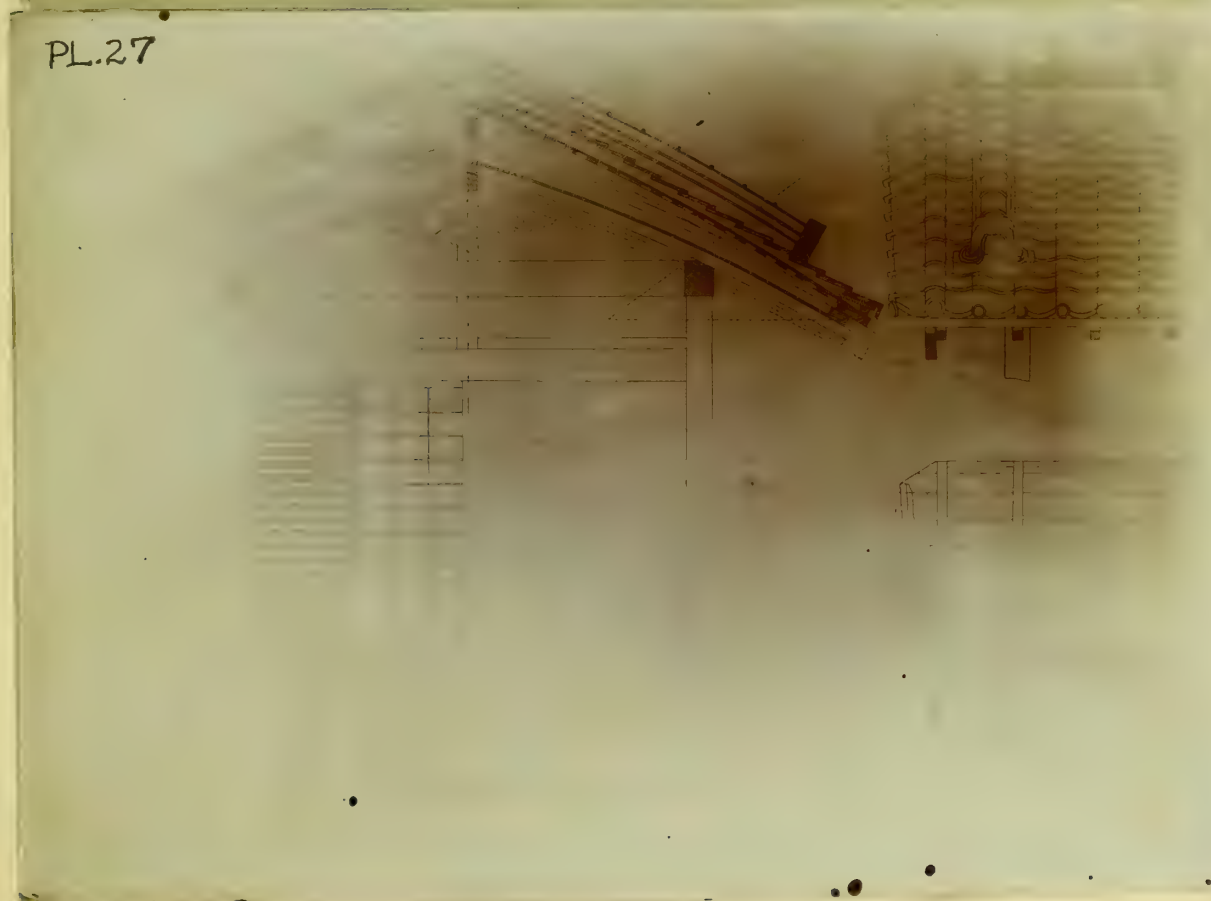


KARA HAFU

PL.26



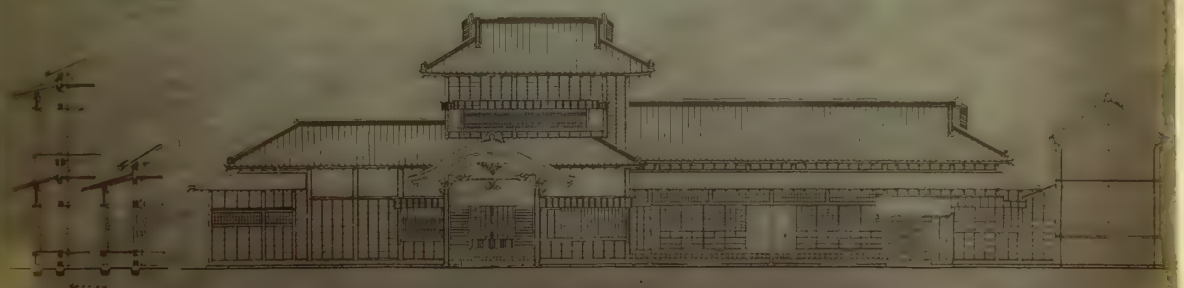
PL.27



PL. 28

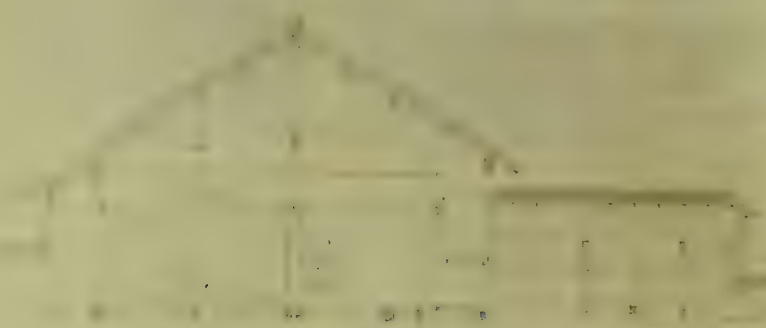
A Dwelling House

Side Elevation



Front Elevation

PL. 29



I have dwelt so much on the reservedness and seclusion of Japanese dwelling houses. Once again I take up this point and call the attention of all Japanese. Works of art, no matter what they are, should express the sentiment or impression of the artist. The work which has beauty as its object should call forth the sentiment or impression of beauty to the observer or hearer. If the aim and object of any work of art cannot be recognized by others the work is nothing but failure. As the work of domestic architecture is a part of architecture, which has beauty as one of its objects, all possible efforts to beatify a house are quite rational. One might say that our houses being far from gaudiness do not aim to attract attention by showy colors like European houses. Still if attractiveness is an important element to be observed in domestic architecture, our way is one of the methods of treatment which is sufficient to charm admirers. This might be true if a house be built with the aim, among many other aims, to give pleasure to the eye. Japanese houses are uniformly of the same pattern and it seems as though they were not intended to beautify

Well, we might call them beautiful, yet if one get used to one thing continually he will get tired; variety is necessary to give pleasure to the eye.

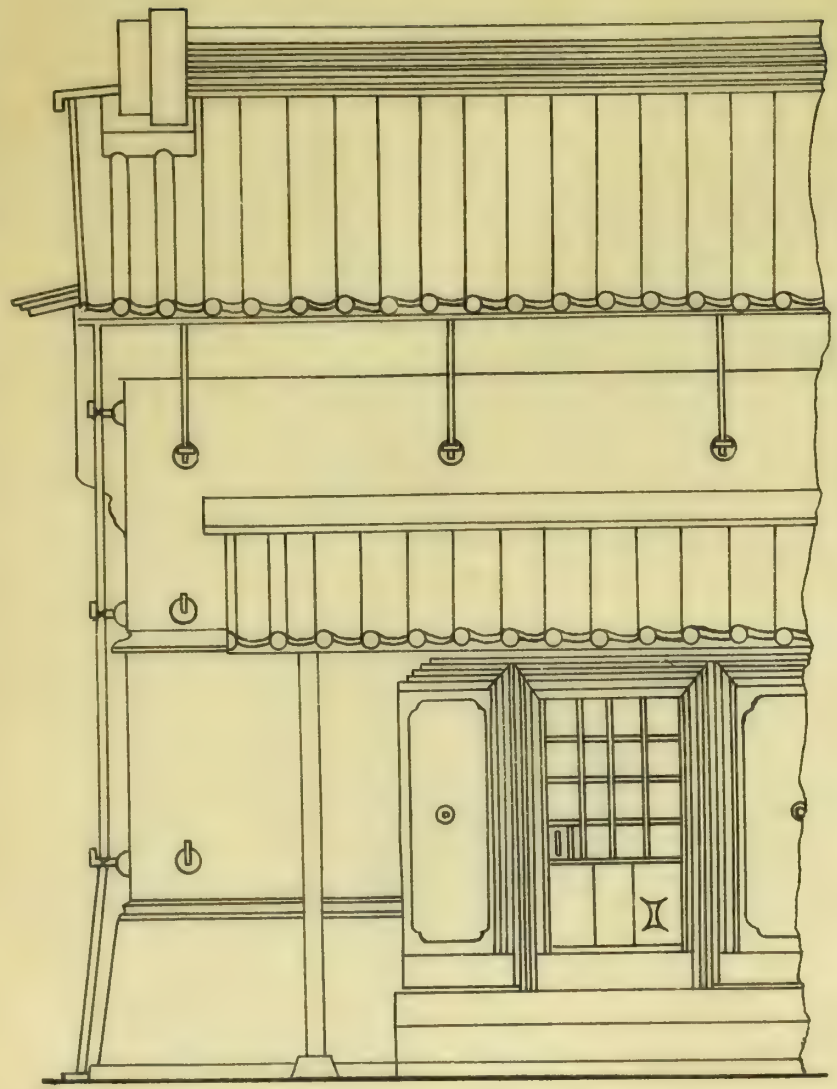
I must add one more word in regard to the love of nature and simplicity. "In fact, Art," says Goethe, "is called Art simply because it is not Nature." A bird, a flower, we use them as materials to give a sensation of pleasure to the eyes, there the fine arts exist. To treat them with taste and refinement needs experience and an educated eye. Japanese domestic architecture, in a word, is, I believe, good in its spirit but leaves a large field to be cultivated in its treatment. If the remark that "Art nouveau" has its source partly in Japanese art is true, why may it not be true that the general adoption of straight lines, which has lately been much preferred by certain European architects in interior decoration, owes its origin to Japan.[2] We furnish a spirit and general idea of treatment to European artists and they well digest them completing in perfect shape, and are kind enough to teach us how to imitate; just as we furnish raw materials of manufacture to Europe and she export them back to

this country after working them up into manufactured goods. Most of the imitations of European houses in Japan which have been produced of late like shoots of plants are mostly of the nature of hybrid works and fail in the design; no truth being noticeable in their features; it is altogether too expensive to do such a ginger-bread work with cement and plaster.

My object is not to suggest the imitation of palacial European houses which are beyond every man's reach: but to propose certain plans, though they may be common-place character, under the guidance of principles involved in the house planning, which I presume to be practicable in this time of transition: and also I would aim to bring our houses more nearly up to the universal stand.

Our houses are peculiar in many respects when compared to the Western houses as the result of difference in customs, yet there are many things in common to both if names were changed. But the most singular feature is a "Dozō" (a treasure house of a half fire-resistance construction) whose necessity is never felt in any forrign house. In all civilized countries valuable articles

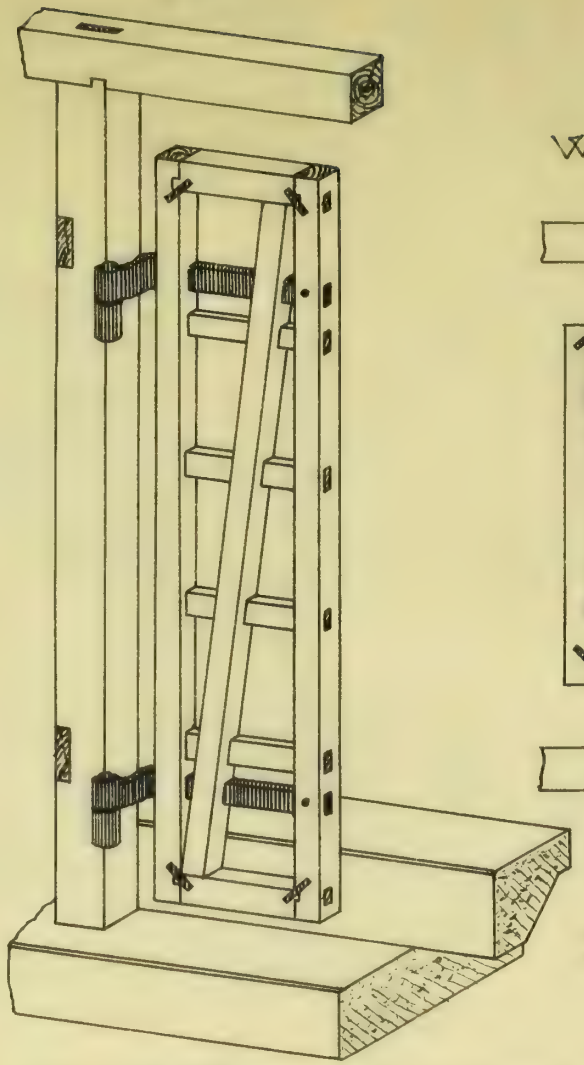
PL. 30



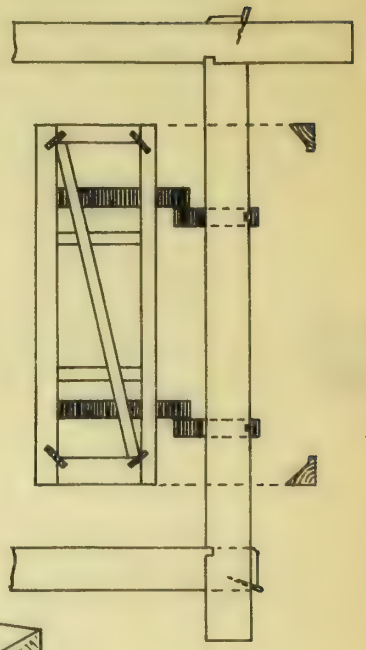
ELEVATION OF DOZO

SCALE 1/50 SHAKV TO THE SHAKV.

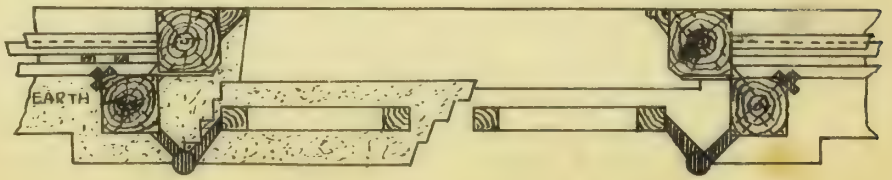
DOOR



WINDOW.

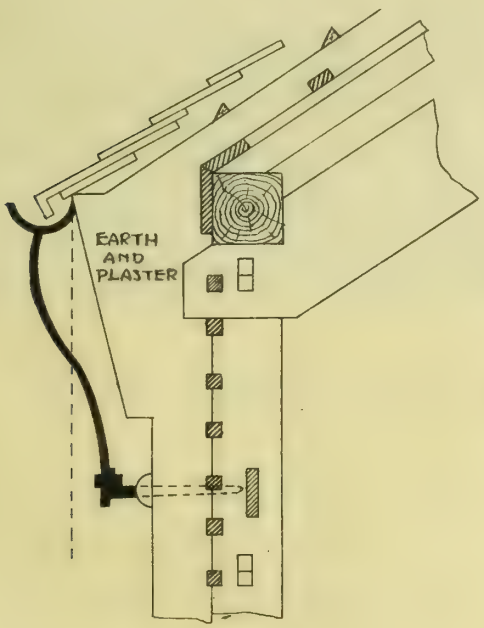


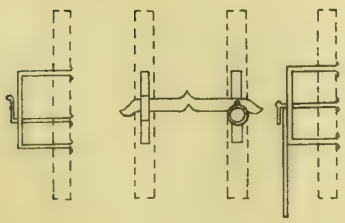
SCALE 1/20 SHAKV TO THE SHAKV.

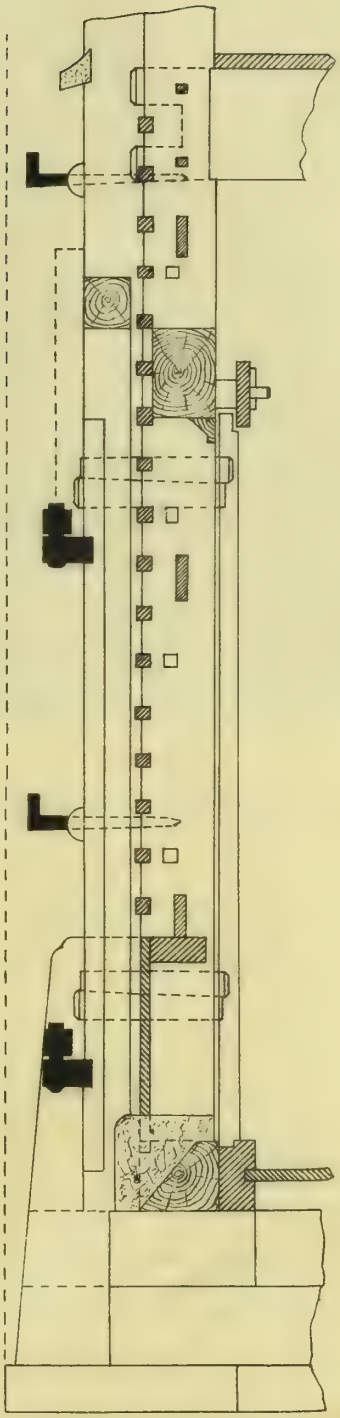


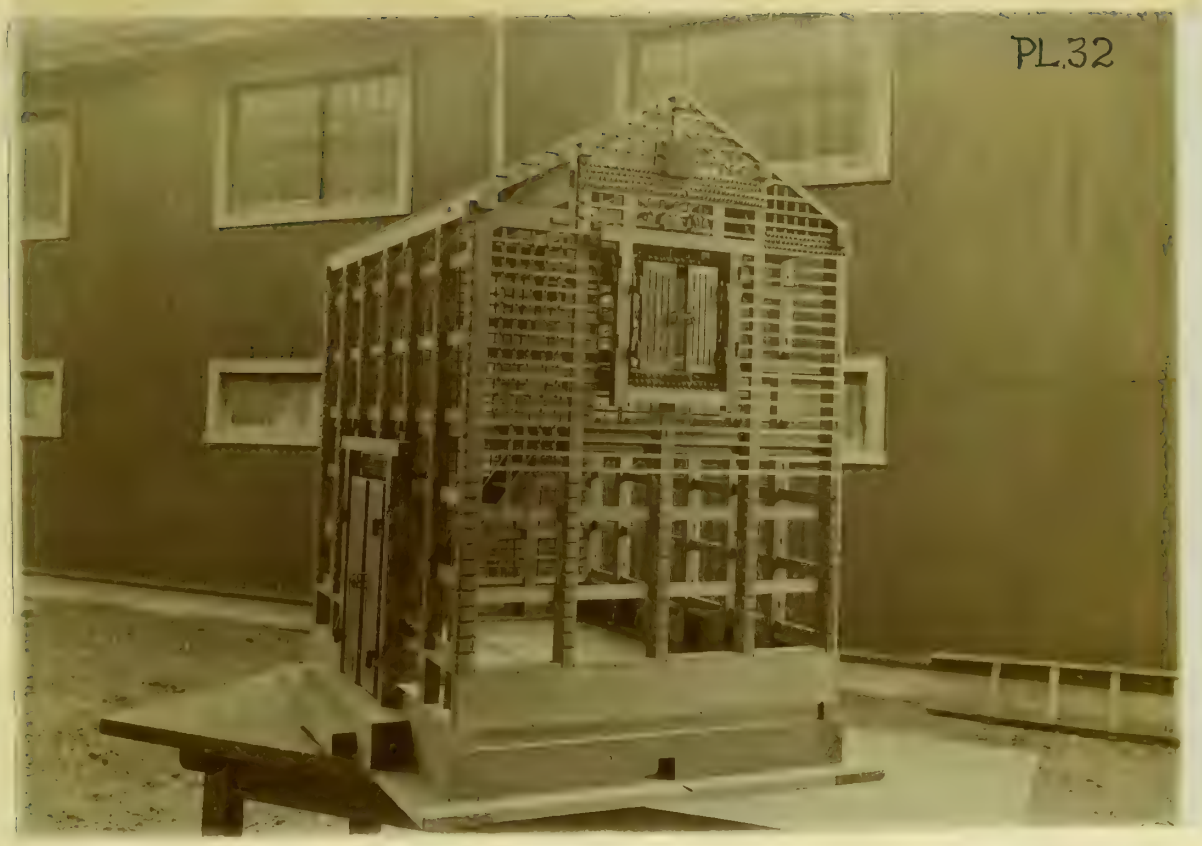
PL.31

SECTION OF DOZO.
SCALE 1/20 SHAKV TO THE SHAKV.









A MODEL SHOWING THE CONSTRUCTION OF DOZO

can be insured for the fear of fire. The system is also provided in this country; then why the necessity of a "Dozo"? The Japanese as a nation who observe the reverence of ancestors to the utmost as stated before, the treasures collected by ancestors are carefully kept by their posterity; these may be cloths, objects of fine arts, household utensiles, gold and silverware, no matter what these are the owner would not give away for any price if the family

is in high standing in society. And moreover the custom of avoiding to display these things necessitates a place in which these valuables may be kept. The number of "Dozo" is the pride of a family; thus the "Dozo" is the outcome of the custom of Japan. The construction of it is shown in the plates. Wood and earth are the chief materials for construction. The thickness of earth put on the wall is nine or ten inches suspended by the lattice work of bamboo of small diameter, say half an inch, tied together in place with the rope made of fibres of the palm tree. The work is exceedingly tedious, for one coat of earth is to be done after another had been dried. Lastly the black or white coating of plaster which is made of mixture of lime paste, (generally the mixture of lime and calcined oyster shells) fibres of hemp, boiled sea weeds, and the pulp of Japanese paper is put on as the finish. If one cannot content or feel safe without a "Dozo" or big earthen safe I have no strong reason to object to the use of it. But constant attention to the new materials which are making appearance from time

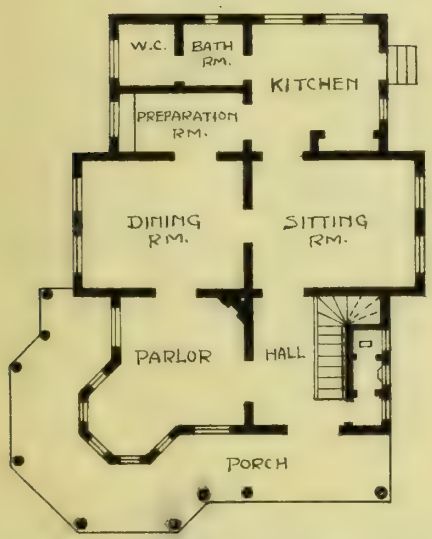
to time in the market is necessary though the new materials and appliances cannot always be said to be exclusively good. And I believe there may be a variety of designs to make it look better to assume an aspect of monumental character.

There is no house in the world in which more mechanical energy has been utilized in the house building than the American house. Considering a house as a commodity there is no other way of producing it economically than to use mechanic power. The Americans have broadest view, wisest choice, and most practical ideas in this respect. They will understand the subject and manage it with wonderful skill while we are discussing on the definition of fine arts and commenting on the subject of nationalism. Architects and house owners need to consider why, taking our standard of living into consideration, our houses cost so much more than those of America. What cost seventy five dollars a "tsubo" (a "tsubo" is six feet square which is a unit of measuring the buildings and grounds) in the United States will cost more than one hundred and fifty yen

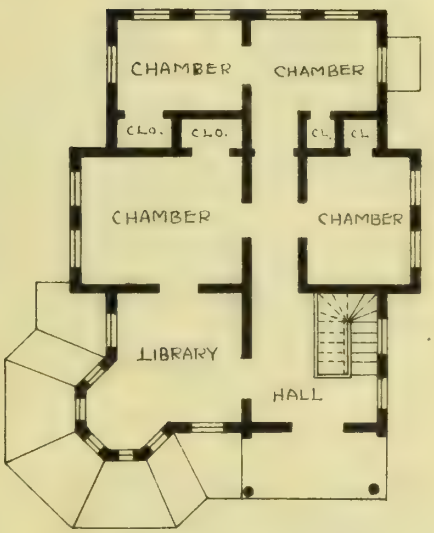
(one yen is about fifty cents of U.S. money) in this country. If its cause be attributed to the lack of mechanical appliances to the production of the building materials, why cannot we use machinery in order to get better houses at lower cost? We could not do it at present; the reason is manifold and very complicated, but in a word the labor saving machine is not labor saving, labor is still cheaper than machinery. Why then do the things made by hands which are cheaper than machinery cost more than the things made by machine? This is a most important question to be solved by present Japanese architects and is one after which they are striving. According to my own view, the love of nature, admiration of simplicity and irregularity which are so much a part of the national taste or character are the greatest barriers to the way of progress of our domestic architecture, if the mechanical appliances to house building is called a progress. Most economical questions concerning houses depend on this and decide the future development of our houses. And our endeavor as architects is to so guide the people that they may not deviate from sound

common sense on dwelling houses.

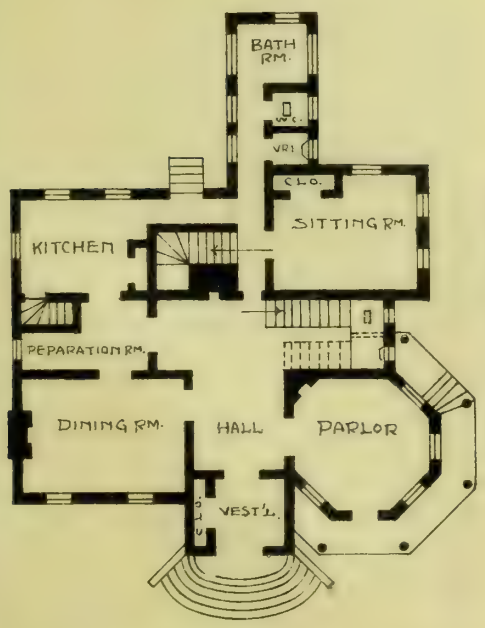
PL.33



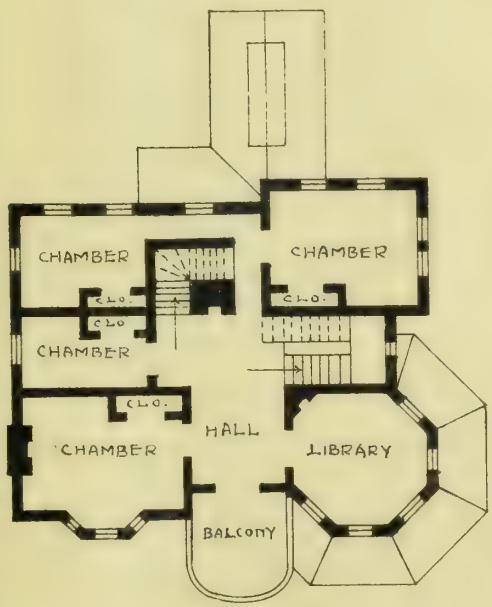
FIRST FLOOR



SECOND FLOOR

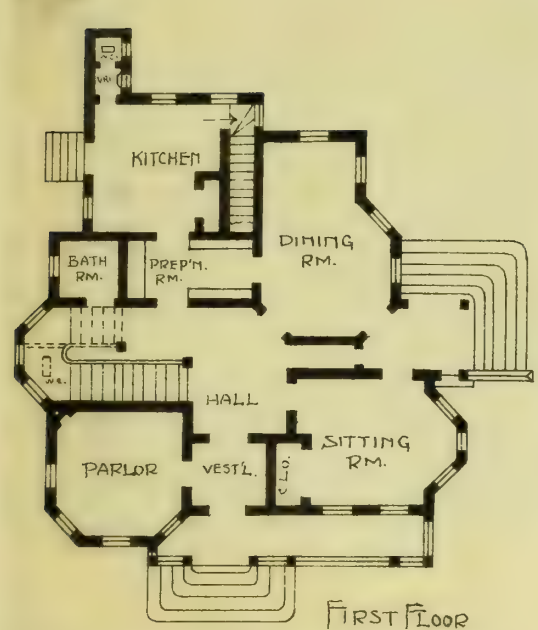


FIRST FLOOR

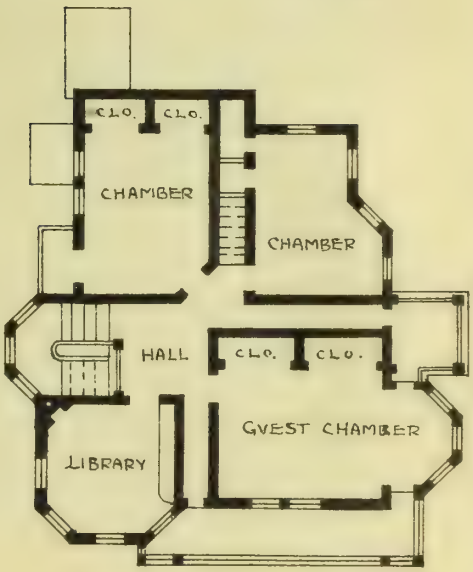


SECOND FLOOR

PL.34



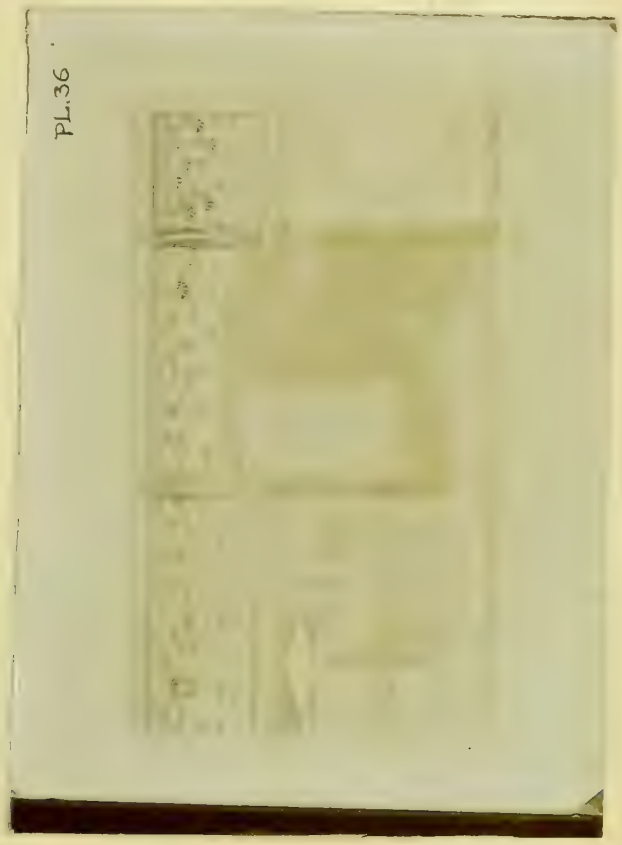
FIRST FLOOR

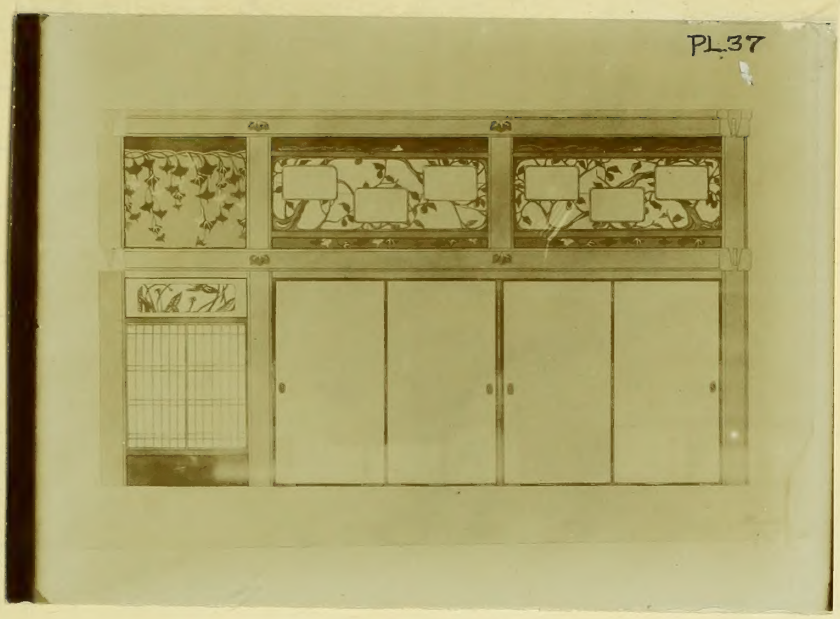


SECOND FLOOR

PL.35

PL.36





Plates 33 and 34 are proposed plans for Japanese dwelling houses.
Plates 35, 36 and 37 are examples showing a method of treatment of Japanese parlor.

Y OF ILLINOIS
RARY

Volume

UNIVERSITY OF ILLINOIS-URBANA
3 0112 086824742